

Costly Designs

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Design patents have been repeatedly criticized for being too expensive. Many critics argue that the cost of design patent examination is a fatal flaw in the system. This Article utilizes recent insights in costly screen theory to evaluate whether the costliness of design protection is really as problematic as the current literature suggests. It argues that there is a real cost to granting bad design patents and that the cost of design patent examination serves a valuable function—independent of its function of facilitating substantive review—by screening out at least some bad design patents. At the same time, the PTO’s costly screen is unlikely to discourage the creation of valuable designs in any significant way. This suggests that the costliness of design patents may actually have a net positive effect on social welfare. This Article also considers the implications of these conclusions for other issues of design patent policy.

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I. INTRODUCTION

The U.S. design patent system has been repeatedly criticized as being too expensive.¹ It is true that design patents are expensive, at least compared to some other forms of intellectual property (IP) rights, because they are issued only after substantive examination by the U.S. Patent and Trademark Office (PTO).² Many critics have argued that the cost of design patent examination is a fatal flaw in the system and, therefore, the United States should adopt a different, cheaper form of protection, such as copyright or a *sui generis* design registration system.³

This Article utilizes recent insights in costly screen theory to evaluate whether the costliness of design protection is really as problematic as the current literature suggests. “Costly screens” are “burdensome processes for vesting legal rights.”⁴ Importantly, “costly screen theory is agnostic as to the content of the screen itself. A fee in the amount of X on actors is functionally equivalent to a process that requires no fee but imposes transaction costs equivalent to X.”⁵ Costly screens “cause actors to self-select against acquisition of rights that will not generate much private value, and limit the vesting of those rights for reasons unrelated to the substantive content of the process itself.”⁶ The cost of patent examination operates as a costly screen

¹ See, e.g., *Legislation: The Vestal Bill for the Copyright Registration of Designs*, 31 COLUM. L. REV. 477, 484 (1931) (“The present [design patent] fees constitute a burdensome expense, especially when it is considered that few of the designs which are produced and tried on the public catch the public fancy.” (footnote omitted)).

² See 35 U.S.C. § 131 (2012).

³ See, e.g., Susanna Monseau, *The Challenge of Protecting Industrial Design in a Global Economy*, 20 TEX. INTELL. PROP. L.J. 495, 543 (2012); see also *infra* note 261.

⁴ David Fagundes & Jonathan S. Masur, *Costly Intellectual Property*, 65 VAND. L. REV. 677, 679–81 (2012) (defining “costly screens” as “the price that an actor must pay to the government in order to take a given action”).

⁵ *Id.* at 682 n.12.

⁶ *Id.* at 680.

because “the patent applicant must decide whether the expected benefits of obtaining a patent, discounted to present value, exceed the costs of navigating the patent office process.”⁷ Jonathan Masur developed a model to evaluate the social welfare effects of costly screening in the context of utility patents⁸ and later, in a piece with David Fagundes, in the context of copyrights.⁹

This Article is the first to apply that model to design patent examination. It demonstrates that there are real costs to granting bad design patents—i.e., patents for designs that are not new, designs that are obvious, designs that demonstrate little or no aesthetic conception, or designs that would have been created without any IP incentive. These types of design patents hinder competition even if they are never litigated.¹⁰

This analysis shows that the PTO’s costly screen, far from being a fatal flaw, actually serves a beneficial function in screening out at least some bad design patents.¹¹ But, at the same time, the screen does not appear to significantly discourage the creation of novel designs that make a significant and material aesthetic contribution and, therefore, have high social value. So the costliness of design patents is likely to have a net positive effect on social welfare. And even if the creation of some valuable designs is being discouraged by this costly screen, the fact remains that the screen has benefits—benefits that have not, to date, been weighed against the private costs imposed on applicants.

To be clear, this Article does not attempt to identify the ideal cost of design patent protection. Nor does it claim that a costly screen is the only or the best way to address the problem of bad design patents. It also acknowledges that, at present, the potential benefits of the costly screen are being hampered by the lack of any meaningful substantive screening by the PTO.¹² However, the fact remains that the PTO’s costly screen provides an as-of-yet-unrecognized benefit by screening out some—and likely many—harmful potential design patents.

Getting the design patent law right is more important now than ever. Design patents were decidedly out of vogue for most of the twentieth century. As recently as 2006, the leading U.S. patent blog, *Patently-O*, ran a headline

⁷ Jonathan S. Masur, *Costly Screens and Patent Examination*, 2 J. LEGAL ANALYSIS 687, 688 (2010).

⁸ See generally *id.* In addition to Masur’s pioneering theoretical work, there is now also empirical evidence indicating that when the PTO increased patent fees in 1982, it “led to a weeding out of low-quality [utility] patents.” See Gaétan de Rassenfosse & Adam B. Jaffe, *Are Patent Fees Effective at Weeding Out Low-Quality Patents?* (Motu Economic and Public Policy Research, Working Paper No. 15-01, 2015), <http://ssrn.com/abstract=2545714> [<https://perma.cc/2QGV-PKXR>].

⁹ See generally Fagundes & Masur, *supra* note 4.

¹⁰ See *infra* Part IV.

¹¹ In this context, it would be more precise to speak about “‘potential’ low value patents.” See Fagundes & Masur, *supra* note 4, at 692 n.46.

¹² See *infra* Part IV.A.1.

asking, “Are Design Patents Worthless?”¹³ But things began to change in 2008 when the Federal Circuit issued its en banc opinion in *Egyptian Goddess, Inc. v. Swisa, Inc.*¹⁴ That case was widely perceived as making it easier to prove design patent infringement, prompting a renewed interest in design patents among patent lawyers.¹⁵ But design patents continued to receive little attention from the larger legal community—let alone the public—until August 2012, when the jury awarded Apple over a billion dollars in *Apple v. Samsung*.¹⁶ As observers quickly noted, a significant portion of that blockbuster verdict was based on Apple’s design patent infringement claims.¹⁷ All of a sudden, design patents were hot.

During the years when most people weren’t paying attention, design patent applicants developed sophisticated claiming practices, which now allow savvy patentees to get broad and flexible protection against competition.¹⁸ At the same time, the Federal Circuit has seriously eroded the substantive requirements for design patents, making them extremely easy to get and to keep.¹⁹ Indeed, “[f]or the past decade, the allowance rate for design patent applications has remained over 90%.”²⁰ And these patents are not limited to the types of beautiful, ornamental objects that most people think of when they hear the word “design.” Companies are getting patents on designs for objects

¹³ Dennis Crouch, *Are Design Patents Worthless? Preliminary Injunction Vacated*, PATENTLY-O (Nov. 27, 2006), http://patentlyo.com/patent/2006/11/are_design_pate.html [<https://perma.cc/US8Z-WFPD>] (referring to PHG Techs., LLC v. St. John Cos., 469 F.3d 1361 (Fed. Cir. 2006)).

¹⁴ See *Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665 (Fed. Cir. 2008) (en banc).

¹⁵ See, e.g., Gene Quinn, *Design Patents: The Under Utilized and Overlooked Patent*, IP WATCHDOG (Dec. 20, 2011), <http://www.ipwatchdog.com/2011/12/20/design-patents-the-under-utilized-and-overlooked-patent/id=21337/> [<https://perma.cc/DH74-H7UD>].

¹⁶ *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, 786 F.3d 983, 989 (Fed. Cir. 2015); see, e.g., Robert J. Walters, *Is Design Patent Litigation Headed for a Turnaround?* BNA PAT. TRADEMARK & COPYRIGHT L. DAILY, Feb. 11, 2013 (“Design patents, long an overlooked weapon for enforcing intellectual property rights, have received a large amount of attention in recent months in the wake of Apple Inc.’s effective use of them in litigation against Samsung Electronics Co.”).

¹⁷ See, e.g., Jeffrey R. Stone & Brett A. Klein, *Design Patent Flexes Muscle*, WINTHROP & WEINSTINE (Nov. 19, 2012), http://www.winthrop.com/news_events/winthrop_news/articletype/articleview/articleid/626/design_patent_flexes_muscle.aspx [<https://perma.cc/GR2D-RLGR>].

¹⁸ See Linda Tischler, *Cooper Woodring, Design Defender*, FAST COMPANY (Oct. 15, 2012), <http://www.fastcompany.com/3001762/cooper-woodring-design-defender> [<https://perma.cc/RA44-ZL6Q>] (“Twenty years ago, design patents were considered unenforceable because applicants, at the behest of lawyers, were too specific in their sketches—they depicted all the gory details of an entire product.” (quoting industrial designer Cooper Woodring, who is also an experienced expert witness in design patent litigation)). See also generally *infra* Part II.B (describing contemporary claiming practices).

¹⁹ See *infra* Part V.A.I.

²⁰ Dennis D. Crouch, *A Trademark Justification for Design Patent Rights* 18 (Aug. 10, 2010) (unpublished manuscript), <http://ssrn.com/abstract=1656590> [<https://perma.cc/YJM5-FAG5>].

that are functional, mundane or that may not ever be visible during a product's normal use—everything from car parts to layouts for smartphone interfaces.²¹

While we have not seen any truly damaging instances of patent “trolling” in the design patent space, the conditions that would invite such practices are firmly in place.²² Not only are design patents easy to get and difficult to invalidate, but they carry the risk of extraordinarily high monetary awards due to a special profit-disgorgement rule.²³ Indeed, it appears that personal-injury law firms are starting to get into the design patent game.²⁴ Given these developments, the United States seems primed for a flood of design patent litigation and abuse. And the only thing stemming the flood seems to be the relatively high cost of obtaining design patents.²⁵

This Article proceeds in five parts. Part II provides a brief overview of the U.S. design patent system. Part III calculates the cost of getting a design patent. Part IV argues that there is a real cost to bad design patents. Part V applies the Masur model to design patents and argues that design patent examination acts as a costly screen which is likely welfare-enhancing. Part VI considers the implications of these conclusions for larger issues of design law and policy.

II. AN INTRODUCTION TO THE LAW OF DESIGN PATENTS

To understand why design patents have become such potent anti-competitive weapons and why they cost so much compared to other forms of design protection, it is necessary to understand some basic principles of design patent law, how designs are claimed and how design patents are infringed under U.S. law. This part will discuss those issues in turn.

A. *Design Patent Basics*

When most people hear the word “patents,” they think of utility patents—the patents that protect useful inventions. Design patents are different.²⁶ While

²¹ See generally *infra* Part V.A.2.

²² See *infra* Part IV.C.

²³ See *infra* Part IV.C.

²⁴ For example, it appears that one company that consistently brings weak patent claims is represented by a personal-injury firm in its numerous design patent lawsuits. See, e.g., Complaint ¶¶ 15, 26–32, *OurPet's Co. v. Dorskocil Mfg. Co.*, No. 1:14-cv-02020 (N.D. Ohio Sept. 11, 2014), ECF 1 (alleging infringement of Stackable Pet Feeder, U.S. Patent No. D467,045 (issued Dec. 10, 2002) (listing lawyers from the Akron, Ohio firm of Choken Welling LLP as plaintiff's counsel)); *Practice Areas*, CHOKEN WELLING LLP, <http://www.choken-welling.com/practice-areas.php> [<https://perma.cc/KG2X-FW87>] (prominently describing the firm as accident attorneys) (“NO FEE Guarantee”); see also *infra* Part III.A.

²⁵ See *infra* Part III.

²⁶ There are actually three types of patents available in the United States: utility patents, design patents, and plant patents. *General Information Concerning Patents*,

utility patents protect “the way an article is used and works,” design patents protect “the way an article looks.”²⁷ A utility patent lasts for 20 years from its filing date,²⁸ while a design patent lasts for 14–15 years from the date it is issued.²⁹ And while the owner of a utility patent has to pay periodic maintenance fees, the owner of a design patent does not.³⁰ Like other patents, design patents are only issued by the PTO following substantive examination.³¹ To be patentable, a design must satisfy the general requirements for patentability, such as novelty and nonobviousness.³² It must also be “original”³³ and “ornamental.”³⁴

A design patent may claim: “(A) a design for an ornament, impression, print, or picture applied to or embodied in an article of manufacture (surface indicia); (B) a design for the shape or configuration of an article of manufacture; [or] (C) a combination of the first two categories.”³⁵ This Article, however, will focus on configuration designs, not surface designs. Under the current law, virtually all surface designs are automatically (and costlessly) protected by copyright upon fixation.³⁶ Because they are already protected by another IP regime, the PTO’s costly screen should not affect the

U.S. PAT. & TRADEMARK OFF. (Oct. 2014), <http://www.uspto.gov/patents-getting-started/general-information-concerning-patents#heading-2> [<https://perma.cc/5LUE-9W3J>].

²⁷ U.S. DEP’T OF COMMERCE, PATENT & TRADEMARK OFF., MANUAL OF PATENT EXAMINING PROCEDURE § 1502.01 (9th ed., Rev. 07.2015, Nov. 2015) [hereinafter MPEP] (citing 35 U.S.C. §§ 101, 171 (2012)).

²⁸ See *id.* § 1502.01(A); see also 35 U.S.C. § 154(a)(2) (2012).

²⁹ See Sarah Burstein, *The Patented Design*, 83 TENN. L. REV. 161, 172 (2015) [hereinafter Burstein, *The Patented Design*].

³⁰ See 37 C.F.R. § 1.362(a)–(b) (2015); MPEP, *supra* note 27, § 1502.01(B).

³¹ See 35 U.S.C. § 131 (2012).

³² See *id.* §§ 102, 103; see also *id.* § 171(b) (Supp. I 2013) (“The provisions of this title relating to patents for inventions shall apply to patents for designs, except as otherwise provided.”); Sarah Burstein, *Visual Invention*, 16 LEWIS & CLARK L. REV. 169, 175 (2012) [hereinafter Burstein, *Visual Invention*] (discussing the requirement of novelty).

³³ 35 U.S.C. § 171(a) (Supp. I 2013). This requirement has been given short shrift in both the case law and the literature. The Federal Circuit has, however, recently suggested in dicta that while “[t]he purpose of incorporating an originality requirement is unclear[,] it likely was designed to incorporate the copyright concept of originality—requiring that the work be original with the author.” *Int’l Seaway Trading Corp. v. Walgreens Corp.*, 589 F.3d 1233, 1238 (Fed. Cir. 2009) (citing 1–2 MELVILLE B. NIMMER & DAVID NIMMER, NIMMER ON COPYRIGHT § 2.01 (2005)).

³⁴ 35 U.S.C. § 171(a).

³⁵ MPEP, *supra* note 27, § 1504.01; see also *id.* § 1502.01 (“The ornamental appearance for an article includes its shape/configuration or surface ornamentation *applied* to the article, or both.” (emphasis added)). Neither the statute nor the MPEP defines “design.” That is unfortunate because it is a word with so many meanings. See Sarah Burstein, *Moving Beyond the Standard Criticisms of Design Patents*, 17 STAN. TECH. L. REV. 305, 308–09 (2013) [hereinafter Burstein, *Standard Criticisms*].

³⁶ See 17 U.S.C. § 102(a).

creation of surface designs at all.³⁷ Therefore, unless otherwise noted or used in a quotation, the word “design” will be used for the rest of this Article to refer to a design for all or part of a product configuration.

B. Claiming Designs

Like a utility patent applicant, a design patent applicant must claim what she regards as her invention.³⁸ But while utility patents can include multiple claims covering multiple inventions, a design patent can only include one claim.³⁹ Accordingly, “[r]estriction will be required . . . if a design patent application claims multiple designs that are patentably distinct from each other.”⁴⁰ A design patent may, however, include more than one embodiment “if they involve a single inventive concept according to the obviousness-type double patenting practice for designs.”⁴¹ If an applicant submits multiple purported embodiments but the examiner concludes that they are actually distinct inventions, the examiner will issue a restriction requirement.⁴² If the applicant cannot—or chooses not to try to—overcome that requirement,⁴³ the applicant must choose which design it will continue to prosecute in that application.⁴⁴

And while utility patent claims consist entirely of words,⁴⁵ design patent claims consist mainly of visual representations.⁴⁶ So the applicant must submit drawings or photographs showing the claimed design. If the applicant submits “color photographs or color drawings,” then “color will be considered an integral part of the disclosed and claimed design.”⁴⁷

³⁷ Moreover, debates about “design protection” in the United States are generally focused on configuration designs. *See* Burstein, *Standard Criticisms*, *supra* note 35, at 312.

³⁸ MPEP, *supra* note 27, § 1503.01(III).

³⁹ *Id.*

⁴⁰ *Id.* § 1504.05, at 1500-50. An allowable claim may, however, “encompass multiple articles,” such as a set or pair of products. *See id.* § 1504.01(b) (citing *Ex parte* Gibson, 20 U.S.P.Q. 249 (Pat. Off. Bd. App. 1933)).

⁴¹ *Id.* § 1504.05 (citing *In re* Rubinfeld, 270 F.2d 391 (C.C.P.A. 1959)).

⁴² *Id.*

⁴³ *See generally id.* § 1504.05(III) (discussing traversal of a restriction requirement).

⁴⁴ *See id.* § 818, at 800-85. If an applicant fails to pursue prosecution of an unelected design, that may adversely affect the scope of any issued design patents. *See* *Pac. Coast Marine Windshields Ltd. v. Malibu Boats, LLC*, 739 F.3d 694, 702 (Fed. Cir. 2014) (“[T]he same principles of . . . prosecution history estoppel apply to design patents . . .”).

⁴⁵ *See* MPEP *supra* note 27, § 608.01(m) (prescribing the form of utility patent claims).

⁴⁶ *See id.* § 1503.01(III) at 1500-7 (“The single claim should normally be in formal terms to ‘The ornamental design for (the article which embodies the design or to which it is applied) as shown.’”); *id.* § 1503.02 (setting forth the rules for drawings); *see also id.* § 1503.02(V) (explaining the rules for the use of photographs and colored images).

⁴⁷ *Id.* § 1503.02(V) at 1500-13. Until recently, an applicant who wished to submit a color drawing or photograph had to first submit a special petition—and pay an additional fee. U.S. DEP’T OF COMMERCE, PATENT & TRADEMARK OFF., MANUAL OF PATENT

Notably, while an applicant can claim “a design for the shape or configuration of an article of manufacture,”⁴⁸ she does not have to claim the design of the entire article of manufacture.⁴⁹ According to the PTO’s current drawing conventions, the claimed portion(s) of the design must be shown in solid lines.⁵⁰ An applicant may use broken or dotted lines to indicate unclaimed portions of a design, to “disclose the environment related to the design” and “to define the bounds of a claimed design . . . when the boundary does not exist in reality in the article embodying the design.”⁵¹ In the latter case, “[i]t would be understood that the claimed design extends to the boundary but does not include the boundary.”⁵² These boundary lines are often, though not always, indicated using dot-dash lines. In this Apple design patent for a “Portable Computer,” the dotted lines indicate unclaimed portions of the product’s design and the dot-dash lines indicate an unclaimed boundary around the claimed portion⁵³:

EXAMINING PROCEDURE § 1503.02(V) at 1500–11 (9th ed. Mar. 2014) (citing 37 C.F.R. § 1.84(a)(2) (2014)). The petition had to “explain that color drawings or color photographs [were] necessary because color is an integral part of the claimed design.” *Id.* § 1503.02(V) at 1500–11. Effective May 13, 2015, however, no such petition or fee is required. Changes to Implement the Hague Agreement Concerning International Registration of Industrial Designs, 80 Fed. Reg. 17918, 17930 (Apr. 2, 2015) (amending 37 C.F.R. § 1.84(a)(2)) (“Section 1.84(a)(2) is amended to eliminate the requirement for a petition and fee set forth in § 1.17(h) to accept color drawings or photographs in design applications.”).

⁴⁸ See MPEP, *supra* note 27, § 1504.01.

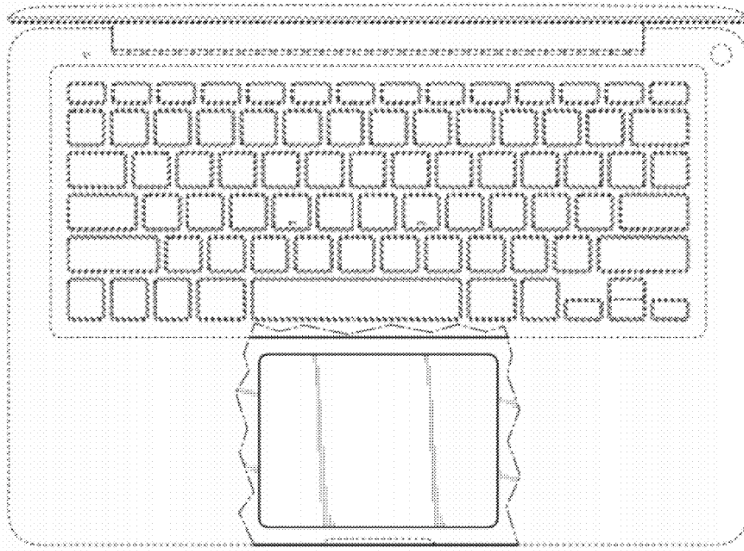
⁴⁹ See *In re Zahn*, 617 F.2d 261, 267 (C.C.P.A. 1980) (“[A] claim to a design [for an article of manufacture] which is embodied in less than all of an article of manufacture . . .”). The fact that the United States allows partial design claiming imposes additional and likely unwarranted burdens on competition. As a recent report prepared for the Australian Government, the independent Advisory Council on Intellectual Property (ACIP) noted, partial claiming regimes impose additional burdens on competitors by “increas[ing] both complexity and the cost of both determining their freedom to operate and/or challenging the validity of any relevant designs.” See AUSTL. GOV’T ADVISORY COUNCIL ON INTELLECTUAL PROP., REVIEW OF THE DESIGNS SYSTEM: FINAL REPORT 29 (Mar. 2015), http://www.acip.gov.au/pdfs/ACIP_Designs_Final_Report.pdf [<https://perma.cc/FK89-3AWX>]. And while “[i]t is true that in the context of patents, claims do something very similar: they allow the patent attorney to describe an invention in a wide range of ways, each of which must be considered (and potentially challenged) separately[.]” it is not clear that “this legally and strategically complex system is . . . desirable in the area of designs.” *Id.* at 29–30; see also *id.* at 30 (“ACIP is . . . unable to recommend amending Australian law to allow partial product protection at this time.”).

⁵⁰ MPEP, *supra* note 27, § 1503.02(III) at 1500–11, Form ¶ 15.50 (“The ornamental design which is being claimed must be shown in solid lines in the drawing.”).

⁵¹ *Id.* at 1500–10.

⁵² *Id.*

⁵³ Portable Computer, U.S. Patent No. D674,382 fig.1 (issued Jan. 15, 2013) (listing Apple, Inc. as assignee).



A design patent applicant can obtain broader coverage by filing “a number of applications simultaneously” or by filing “multiple figures with different combinations of features that are claimed and not claimed in the same patent application (identifying them as different embodiments), with the understanding that the Patent Office might issue a restriction requirement.”⁵⁴

The PTO also allows design patent applicants to broaden their claims—in amendments or later applications—by changing solid lines to broken lines.⁵⁵ Sophisticated applicants exploit this rule, using a “keep [one] ‘in the oven’” strategy.⁵⁶ First, the applicant files an application that claims the entire design of a new product. “Then, while that application is pending, the company files one or more continuation [or divisional applications] that claim [a smaller] portion[] of the design.”⁵⁷ Assuming the new application could claim priority to the original application,⁵⁸ this strategy allows a design patent applicant to go back to the PTO and capture competing products that were introduced after

⁵⁴ See Scott D. Locke, *Fifth Avenue and the Patent Lawyer: Strategies for Using Design Patents to Increase the Value of Fashion and Luxury Goods Companies*, 5 J. MARSHALL REV. INTELL. PROP. L. 40, 42 (2005).

⁵⁵ See MPEP, *supra* note 27, § 1504.04, at 1500-47.

⁵⁶ See Perry J. Saidman, *The Crisis in the Law of Designs*, 89 J. PAT. & TRADEMARK OFF. SOC’Y 301, 319 (2007) (providing a detailed explanation of this strategy).

⁵⁷ See Sarah Burstein, *Heart, Soul and US Design Patents—and Partial Claiming*, CLASS 99 (Oct. 17, 2012), <https://www.marques.org/Class99/Default.asp?XID=BHA377> [<https://perma.cc/5M3G-SWF4>] [hereinafter Burstein, *Heart & Soul*]. See also Locke, *supra* note 54, at 42 (“If the applicant wishes to obtain the broadest coverage possible, then she might: . . . file an application that claims many details and subsequently file continuation and divisional applications to the broader embodiments . . .”).

⁵⁸ See generally *In re Owens*, 710 F.3d 1362, 1366 (Fed. Cir. 2013) (discussing the rules for priority claims in design patent applications).

the first design patent application was filed—even if those competing products did not infringe the original patent claim.⁵⁹ Importantly, there is no requirement that the smaller portion or portions claimed in a continuation (or divisional) represent an important, distinctive or otherwise salient design feature.⁶⁰

The practice of drafting patent claims to cover a competitor's products is not, of course, limited to design patents.⁶¹ Nor is it new. It has even been condoned by the Federal Circuit:

[T]here is nothing improper, illegal or inequitable in filing a patent application for the purpose of obtaining a right to exclude a known competitor's product from the market; nor is it in any manner improper to amend or insert claims intended to cover a competitor's product the applicant's attorney has learned about during the prosecution of a patent application.⁶²

Despite its long acceptance in the PTO and in the courts, this strategy has been criticized in the utility patent literature for inviting abuse⁶³ and making a patent claim akin to “a fence that will be redrawn after the fact.”⁶⁴

⁵⁹ See Saidman, *supra* note 56, at 319. The strategy described by Saidman should now be limited by a recent Federal Circuit decision. See *Owens*, 710 F.3d at 1368. However, the PTO has interpreted *Owens* quite (and probably unduly) narrowly. See MPEP, *supra* note 27, § 1503.02(III).

⁶⁰ Compare Tischler, *supra* note 18 (“Now companies only patent the parts of a product that represent its ‘heart and soul,’ like Apple’s ‘flat, transparent, edge-to-edge front and rounded corners.’ That’s new, and enforceable.” (quoting industrial designer and Apple expert witness Cooper Woodring)), with Burstein, *Heart & Soul*, *supra* note 57 (responding to Woodring’s “heart and soul” comment). See also generally Brief of 26 Design Educators as Amici Curiae in Support of Appellee Apple Inc. at 3, *Apple, Inc. v. Samsung Elecs. Co., Ltd.*, No. 14-1335 (Fed. Cir. Aug. 4, 2014), ECF 99 (discussing the importance of a “salient” design feature); *id.* at 18 (suggesting that “the distinctive black, flat front plate of the iPhone” is a “salient feature”) (apparently referring to U.S. Patent No. D618,677 (issued June 29, 2010)).

⁶¹ See Mark A. Lemley & Kimberly A. Moore, *Ending Abuse of Patent Continuations*, 84 B.U. L. REV. 63, 76 (2004) (“Inventors can keep an application pending in the PTO for years, all the while monitoring developments in the marketplace. They can then draft claims that will cover those developments.” (discussing utility patents)).

⁶² *Kingsdown Med. Consultants, Ltd. v. Hollister Inc.*, 863 F.2d 867, 874 (Fed. Cir. 1988) (discussing U.S. Patent No. 4,460,363, a utility patent); see also Saidman, *supra* note 56, at 319 (describing this strategy as “standard and well-accepted patent gamesmanship” and a “weapon that utility patent owners have had for years”).

⁶³ See, e.g., Lemley & Moore, *supra* note 61, at 78 (“Permitting patentees to change claims to track [a] competitor’s products invites abuse of the system.”).

⁶⁴ See Tun-Jen Chiang, *Fixing Patent Boundaries*, 108 MICH. L. REV. 523, 525 (2010); see also *id.* at 526 (“The fact that patent boundaries can be moved, at any time and within broad substantive limits, is one of the oddest and most problematic features of the patent system.”).

And there are reasons to be particularly concerned about this type of *ex post* claiming in the design patent context. A design patent carries with it the potential for enormous monetary awards, even if it claims only a tiny, trivial, or otherwise insignificant part of a product's overall design. And if a later-claimed design is a visual "match" for some part of the intervening competing product, no amount of wordsmithing or creative legal argument—mainstays in the defense of utility patent cases—can save the competitor.⁶⁵

When a utility patent applicant attempts to amend a patent claim, the applicant takes on the risk of creating new and potentially unfavorable prosecution history. However, design patent examiners rarely issue rejections.⁶⁶ So there is no comparable risk for design patent applicants who seek to amend their claims. Indeed, because examiners rarely issue rejections, there is usually little prosecution history.

C. Design Patent Infringement

Like a utility patent, a design patent gives its owner the right to exclude others from making, using, selling or offering to sell the patented design.⁶⁷ Importantly, a design patent protects only the claimed designs, not the general design concept.⁶⁸ The Federal Circuit has stated the test for design patent infringement as follows:

⁶⁵ If the designs are not identical but "not plainly dissimilar," the defendant may introduce prior art to limit the claim scope. *See Egyptian Goddess, Inc. v. Swisa, Inc.*, 543 F.3d 665, 678 (Fed. Cir. 2008) (en banc). However, this requires actually finding such prior art, which can be particularly difficult in the design context. Additionally, a defendant can argue that the district court should "factor[] out the functional aspects of [the patented] design as part of its claim construction." *Richardson v. Stanley Works Inc.*, 597 F.3d 1288, 1293 (Fed. Cir. 2010) (approving of this approach). *But see Apple Inc. v. Samsung Elecs. Co., Ltd.*, 786 F.3d 983, 998 (Fed. Cir. 2015) (stating that *Richardson* "did not establish a rule to eliminate entire elements from the claim scope"). However, this factoring-out-functional-pieces approach does not appear to have been designed for—or blessed by the Federal Circuit—in cases where the accused product was a true visual match for the patented design. Instead, it seems to have been employed in instances where the products did not actually look much alike but where the Federal Circuit was, for whatever reason, reluctant to say so. *See, e.g., Richardson*, 597 F.3d at 1291–92 (showing pictures of the claimed and accused designs, which look distinctly different).

⁶⁶ *See Crouch*, *supra* note 20, at 19.

⁶⁷ 35 U.S.C. § 271(a) (2012) ("Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefor, infringes the patent.").

⁶⁸ *See generally* Sarah Burstein, *Design Law*, TUMBLR (July 2, 2014), <http://design-law.tumblr.com/post/90571053836/does-this-reflector-for-use-in-golf-infringe> [<https://perma.cc/2AAX-23QX>] (discussing an example of "the 'concept fallacy' in design patent litigation—i.e., where the design patent owner (and/or the owner's counsel) seems to be under the mistaken impression that design patents cover general design concepts instead of specific designs").

[I]f, in the eye of an ordinary observer, giving such attention as a purchaser usually gives, two designs are substantially the same, if the resemblance is such as to deceive such an observer, inducing him to purchase one supposing it to be the other, the first one patented is infringed by the other.⁶⁹

This is the only test for infringement; there is no separate test for infringement by equivalents.⁷⁰ In conducting this inquiry, the ordinary observer is deemed to be familiar with the prior art.⁷¹

If a design patent owner succeeds on a claim of infringement, the owner is entitled to “damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer, together with interest and costs as fixed by the court.”⁷² A judge may also “increase [these] damages up to three times the amount found or assessed.”⁷³ For certain acts of infringement, however, a design patent owner can elect to recover the infringer’s profits instead of damages.⁷⁴ Section 289,

⁶⁹ See *Egyptian Goddess*, 543 F.3d at 670 (alteration in original) (quoting *Gorham Co. v. White*, 81 U.S. (14 Wall.) 511, 528 (1871)).

⁷⁰ See *Minka Lighting, Inc. v. Craftmade Int’l, Inc.*, 93 Fed. App’x 214, 217 (Fed. Cir. 2004) (“The substantial similarity test by its nature subsumes a doctrine of equivalents analysis.” (citing *Lee v. Dayton-Hudson Corp.*, 838 F.2d 1186, 1189–90 (Fed. Cir. 1988))).

⁷¹ *Egyptian Goddess*, 543 F.3d at 677. The “prior art” consists of documents and other sources “which may be used to determine the novelty and nonobviousness” of a claimed invention. See 1 DONALD S. CHISUM, CHISUM ON PATENTS GI-18 (2016) (defining “prior art”). See generally 35 U.S.C. § 102 (Supp. I 2013) (setting forth which sources can be used to invalidate claimed inventions). The prior art includes sources from analogous arts. See MPEP, *supra* note 27, § 1504.03(I)(A); see also Burstein, *Visual Invention*, *supra* note 32, at 182–86 (discussing the concept of “analogous arts” in the context of design patents). And, in this analysis, the ordinary observer is not an actual customer but, rather, is a legal fiction akin to the “reasonable person” in tort law. See generally *Arminak & Assocs., Inc. v. Saint-Gobain Calmar, Inc.*, 501 F.3d 1314, 1321 (Fed. Cir. 2007), *overruled on other grounds by Egyptian Goddess*, 543 F.3d at 671 (“This test requires an objective evaluation of the question of whether a hypothetical person called the ‘ordinary observer’ would find substantial similarities between the patented design and the accused design . . .” (citing *Gorham*, 81 U.S. at 528)).

⁷² See 35 U.S.C. § 284 (2012).

⁷³ *Id.*

⁷⁴ Specifically, “a plaintiff may elect to recover either damages under 35 U.S.C. § 284 or [a disgorgement of profits under] 35 U.S.C. § 289, but not both.” Dennis M. White, *Inefficiencies in Overcompensating Design Patent Damages Under 35 U.S.C. § 289 in Complex Technologies*, 95 J. PAT. & TRADEMARK OFF. SOC’Y 444, 447 (2013) (citing *Catalina Lighting, Inc. v. Lamps Plus, Inc.*, 295 F.3d 1277 (Fed. Cir. 2002)). Notably, however, § 289 does not apply to all acts of design patent infringement. By its plain terms, it applies only to certain actions taken in the commercial context. See 35 U.S.C. § 289 (2012) (providing a penalty for those who “applies the patented design . . . to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied” (emphasis added)). So § 289 would not apply if, for example, a design student copied a patented design in class for the purpose of learning a certain fabrication technique.

entitled “Additional remedy for infringement of design patent,” states:

Whoever during the term of a patent for a design, without license of the owner, (1) applies the patented design, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or (2) sells or exposes for sale any article of manufacture to which such design or colorable imitation has been applied shall be liable to the owner *to the extent of his total profit*, but not less than \$250, recoverable in any United States district court having jurisdiction of the parties.

Nothing in this section shall prevent, lessen, or impeach any other remedy which an owner of an infringed patent has under the provisions of this title, but he shall not twice recover the profit made from the infringement.⁷⁵

The Federal Circuit recently interpreted this provision as “explicitly authoriz[ing] the award of total profit from the article of manufacture bearing the patented design.”⁷⁶ In that decision, the Federal Circuit seemed to regard the phrase “article of manufacture” as being generally synonymous with “the defendant’s product.”⁷⁷ The Federal Circuit has also interpreted § 289 as applying to pretax, as opposed to post-tax, profits.⁷⁸

Congress provided the disgorgement remedy for design patent infringement in the late nineteenth century.⁷⁹ Although it was sharply

⁷⁵ 35 U.S.C. § 289 (emphasis added). An award of profits, unlike an award of damages, cannot be trebled. Robert S. Katz, *Infringement of Design Patents in the United States*, 10 U. BALT. INTELL. PROP. L.J. 117, 120 (2002) (“The infringer’s profits, however, cannot be trebled even if willful infringement is proven.” (citing *Braun Inc. v. Dynamics Corp. of Am.*, 975 F.2d 815, 824 (Fed. Cir. 1992))).

⁷⁶ *Apple Inc. v. Samsung Elecs. Co., Ltd.*, 786 F.3d 983, 1001–02 (Fed. Cir. 2015).

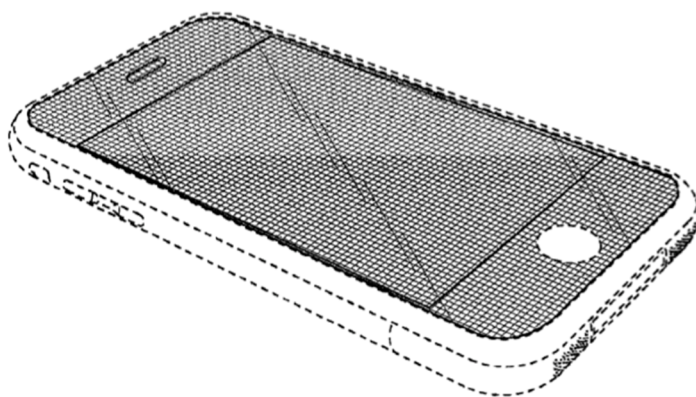
⁷⁷ *See id.* (equating the relevant “article of manufacture” with the item Samsung “sold separately . . . to ordinary purchasers”); *see also* KARL T. ULRICH & STEPHEN D. EPPINGER, *PRODUCT DESIGN AND DEVELOPMENT* 2 (5th ed. 2011) (defining the term “product” as “something sold by an enterprise to its customers.” (emphasis omitted)). However, the Federal Circuit draw a distinction between these terms for situations in which the product is customizable at the point of sale and the patent covers only the customizable part. *See Apple*, 786 F.3d at 1002 (distinguishing the purchase of a smartphone from “a factual situation where ‘[a] purchaser desiring a piano of a particular manufacturer may have the piano placed in any one of several cases dealt in by the maker.’” (alteration in original) (quoting *Bush & Lane Piano Co. v. Becker Bros.*, 222 F. 902, 903 (2d Cir. 1915))). Although a full discussion of this issue is beyond the scope of this Article, the statutory phrase “article of manufacture” should not be interpreted as synonymous with “product.” *See Burstein*, *The Patented Design*, *supra* note 29, at 207–08.

⁷⁸ *Nike, Inc. v. Wal-Mart Stores, Inc.*, 138 F.3d 1437, 1447–48 (Fed. Cir. 1998). This decision, which focuses mainly on the applicability of the patent marking requirement, also includes an extended discussion of the history of § 289 in dicta. *See id.* at 1440–43.

⁷⁹ *See* Mark A. Lemley, *A Rational System of Design Patent Remedies*, 17 STAN. TECH. L. REV. 219, 222 (2013) (citing Act of Feb. 4, 1887, ch. 105, § 1, 24 Stat. 387, 387).

criticized at the outset,⁸⁰ this provision received almost no attention during the twentieth century, likely because design patent infringement was not a popular cause of action during that period. But the August 2012 *Apple v. Samsung* trial brought new attention—and criticism—to both the design patent system and its special disgorgement rule.⁸¹

In that case, the jury found that Samsung infringed three design patents.⁸² Two of those patents claimed partial designs for mobile phones, specifically, a flat black front face⁸³:



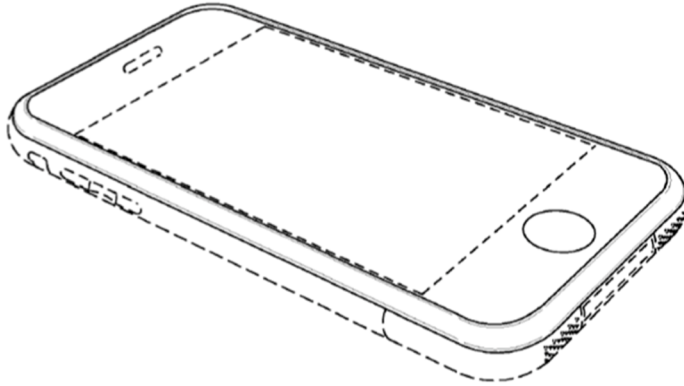
⁸⁰ See Frederic H. Betts, *Some Questions Under the Design Patent Act of 1887*, 1 YALE L.J. 181, 183–84 (1892).

⁸¹ Since that verdict was announced, a number of commentators have criticized § 289. See, e.g., Thomas F. Cotter, *Reining in Remedies in Patent Litigation: Three (Increasingly Immodest) Proposals*, 30 SANTA CLARA HIGH TECH. L.J. 1 (2013); Lemley, *supra* note 79, at 221; White, *supra* note 74, at 455. And when the merits appeal finally reached the Federal Circuit in 2014, many amici filed briefs on the issue of design patent disgorgement, bringing further attention to this issue. In the interest of full disclosure, it should be noted that the author signed onto one of those briefs. See Corrected Brief of Amici Curiae of 26 Law Professors in Support of Appellant Samsung, *Apple Inc. v. Samsung Elecs. Co., Ltd.*, No. 2014-1335 (Fed. Cir. June 4, 2014), ECF 62.

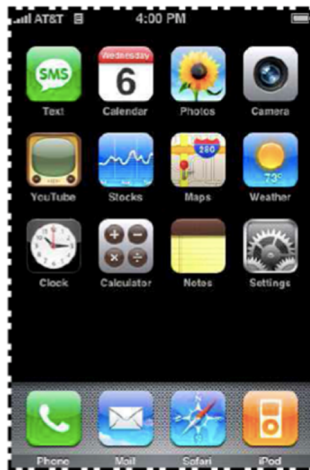
⁸² Amended Verdict Form at 6–7, *Apple Inc. v. Samsung Elecs. Co., Ltd.*, No. 5:11-cv-01846 (Aug. 24, 2012), ECF 1931 (finding that Samsung infringed U.S. Patents Nos. D618,677, D593,087, and D604,305 but did not infringe U.S. Patent No. D504,889).

⁸³ Electronic Device, U.S. Patent No. D618,677 fig.1 (issued June 29, 2010).

And the front portion, including the bezel⁸⁴:



The third patent claimed this design for a graphical user interface⁸⁵:



Based on these findings of infringement, along with its findings of utility patent and trade dress infringement, the jury determined that Samsung was liable to Apple for just over \$1 billion.⁸⁶ Although the verdict form did not

⁸⁴ Electronic Device, U.S. Patent No. D593,087 fig.1 (issued May 26, 2009).

⁸⁵ Graphical User Interface for a Display Screen or Portion Thereof, U.S. Patent No. D604,305 fig.2 (issued Nov. 17, 2009). This color version of the second embodiment was obtained from an expert report that was publicly filed in *Apple v. Samsung*. See Expert Report of Susan Kare at 10, *Apple*, No. 5:11-cv-01846 (June 1, 2012), ECF 927-25.

⁸⁶ Amended Verdict Form, *supra* note 82, at 15 (stating a total award of \$1,049,393,540.00). This total amount was later reduced by the judge. See Order Re: Damages at 26, *Apple*, No. 5:11-cv-01846 (Mar. 1, 2013), ECF 2271 (striking \$450,514,650 from the jury's award and granting partial retrial on certain damages issues).

require the jury to break down its award by legal claim,⁸⁷ many observers believe that design patent disgorgement contributed significantly to the jury's blockbuster damages award.⁸⁸

In the wake of the *Apple v. Samsung* verdict, the disgorgement rule appears to be gaining both importance and attention at the district court level. Consider, for example, the recent case of *Pacific Coast Marine Windshields Ltd. v. Malibu Boats, LLC*. In that case, Pacific Coast Marine Windshields (PCMW) accused various defendants, including Malibu, of infringing U.S. Patent No. D555,070, which claims a design for a boat windshield.⁸⁹ The defendants moved for partial summary judgment, arguing that if PCMW prevailed, its claim for disgorgement under § 289 “should be limited to profits from sales of the accused windshield, and should not include profits from sales of entire boats.”⁹⁰ The district court disagreed, ruling that “[t]he plain language and intent of the statute support a conclusion that Pacific is entitled to Malibu's profits from the sale of its boats with the windshield.”⁹¹ At that point, the defendants “still had strong non-infringement arguments.”⁹² However, the case settled just a few weeks later.⁹³ As a part of this settlement,

⁸⁷ Amended Verdict Form, *supra* note 82, at 15 (requiring the jury to state “the total dollar amount that Apple is entitled to receive from Samsung”); *id.* at 16 (requiring the jury to “provide the dollar breakdown by product” but not by type of infringement).

⁸⁸ E.g., Jeffrey Stone & Brett Klein, *Design Patent Flexes Muscles*, DUETSBLOG (Dec. 7, 2012), <http://www.duetsblog.com/2012/12/articles/idea-protection/design-patent-flexes-muscles/> [<https://perma.cc/Q4QD-6M4B>] (“The verdict resulted in \$1.05 billion owed to Apple by Samsung, primarily due to design patent infringement.”).

⁸⁹ Second Amended Complaint ¶¶ 13, 24, *Pac. Coast Marine Windshields Ltd. v. Malibu Boats, LLC*, No. 6:12-cv-00033 (M.D. Fla. July 5, 2011), ECF 69; *see also* *Marine Windshield*, U.S. Patent No. D555,070 (issued Nov. 13, 2007).

⁹⁰ Defendants' Consol. Motion for Partial Summary Judgment at 1, *Pac. Coast Marine Windshields*, No. 6:12-cv-00033 (M.D. Fla. July 20, 2012), ECF 211.

⁹¹ *Pac. Coast Marine Windshields*, No. 6:12-cv-00033, 2014 WL 4185297, at *11 (M.D. Fla. Aug. 22, 2014); *see also* White, *supra* note 81, at 455 (arguing that, on these facts, “[f]inding . . . the boat is the [relevant] article of manufacture, would permit the absurd and inequitable results of claiming profit based on the sale of unpatented articles”).

⁹² William Seymour, *Pacific Coast v. Malibu Boats—The Nightmare Apportionment Scenario Realized*, ORDINARY OBSERVER (Aug. 27, 2014), <http://www.theordinaryobserver.com/2014/08/pacific-coast-v-malibu-boats-nightmare.html> [<https://perma.cc/2AJY-QBJA>]; *see also* Sarah Burstein, *Guest Post on Pacific Coast Marine by Prof. Sarah Burstein*, PATENTLY-O (Jan. 13, 2014), <http://patentlyo.com/patent/2014/01/guest-post-on-pacific-coast-marine-by-prof-sarah-burstein.html> [<https://perma.cc/CSP6-DEQZ>] (noting, in a discussion of a prior appeal on the issue of prosecution history estoppel, that “[i]t seems difficult to argue that the accused three-rectangular-hole design is *not* a colorable imitation of the surrendered two-rectangular-hole design but that it *is* a colorable imitation of the claimed four-round-hole design”).

⁹³ Notice of Settlement at 1, *Pac. Coast Marine Windshields, LLC*, No. 6:12-cv-00033 (M.D. Fla. Sept. 16, 2014), ECF 442.

Malibu reportedly paid PCMW \$20 million.⁹⁴ And more cases asserting design patents for small parts of larger products are getting filed all the time.⁹⁵

III. THE COST OF OBTAINING A DESIGN PATENT

Because design patents must undergo substantive examination, they are more expensive than other potential forms of design protection.⁹⁶ The cost of design patent examination includes three main components: PTO fees, drawing fees, and attorney's fees.⁹⁷

The PTO fees for a single design patent application—including the PTO's basic filing, search, examination, and issue fees—currently total \$1,320.⁹⁸ But those fees are significantly reduced for some applicants. Those who qualify as “small entities”⁹⁹ or micro-entities¹⁰⁰ must pay only \$660 and \$330, respectively, per design patent.¹⁰¹

Drawing fees are the next main component. As discussed above, designs may be claimed using photographs or drawings. The PTO requires that “[t]he drawings or photographs . . . contain a sufficient number of views to disclose

⁹⁴ *Malibu Pays \$20M to Settle Lawsuit, Restates Earnings*, KNOXVILLE NEWS SENTINEL (Sept. 22, 2014), http://www.knoxnews.com/business/malibu-pays-20m-to-settle-lawsuit-restates-earnings_74881444 [<https://perma.cc/N8BH-89GT>].

⁹⁵ See, e.g., Complaint ¶¶ 16–17, *Warrior Sports, Inc. v. Performance Lacrosse Grp. Inc.*, No. 2:14-cv-14608 (E.D. Mich. Dec. 5, 2014), ECF 1 (alleging that certain lacrosse heads infringe U.S. Patent No. D699,798, which claims a design for what appear to two small holes at the base of a lacrosse head); Complaint ¶¶ 55–59, *Sonos, Inc. v. D&M Holdings Inc.*, No. 1:14-cv-01330 (D. Del. Oct. 21, 2014), ECF 1 (alleging that certain speakers, amplifiers, and “pre-amplifiers” all include volume-control buttons that infringe U.S. Patent No. D559,197).

⁹⁶ See Burstein, *Standard Criticisms*, *supra* note 35, at 310–12 (discussing the cost of copyright protection); *id.* at 342 (discussing the cost of design protection in the United Kingdom and in the European Union).

⁹⁷ See Thomas T. Chan, *Design Patent*, in THE AMERICAN BAR ASSOCIATION'S LEGAL GUIDE TO FASHION DESIGN 39–40 (David H. Faux ed., 2013) (noting that “the total cost of using a lawyer in filing and prosecuting an application” includes “legal fees, drawing fees, and . . . government fees”).

⁹⁸ See *USPTO Fee Schedule: Current Fee Schedule*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/web/offices/ac/qs/ope/fee010114.htm> [<https://perma.cc/6GDJ-SFMP>] [hereinafter *Current Fee Schedule*] (as revised Jan. 15, 2015). Other fees may apply in certain circumstances. For example, there is an additional \$400 fee “for each additional 50 sheets that exceeds 100 sheets” in a design application. *Id.*

⁹⁹ See 37 C.F.R. § 1.27(a)(1) (2014) (defining “small entities”).

¹⁰⁰ “Micro entities” are those that qualify as “small entities,” *see supra* note 99, and satisfy additional requirements. See 37 C.F.R. § 1.29 (2014).

¹⁰¹ See *Current Fee Schedule*, *supra* note 98. These fees have actually decreased since 2013, when the totals were \$1,780 (regular), \$890 (small entity) and \$445 (micro-entity). See *USPTO Fee Schedule: Current Fee Schedule*, U.S. PAT. & TRADEMARK OFF., <http://www.uspto.gov/web/offices/ac/qs/ope/fee031913.htm> [<https://perma.cc/RP67-5SHG>] (as updated August 2013). This is due to a reduction in the design patent issue fees. Compare *id.*, with *Current Fee Schedule*, *supra* note 98.

the complete appearance of the design claimed, which may include the front, rear, top, bottom, and sides.”¹⁰² Applications for most three-dimensional designs require six to seven drawings.¹⁰³ Applicants often hire professionals to draft these drawings, which can cost about \$500 for a simple application.¹⁰⁴ If an applicant seeks to claim multiple embodiments—or files multiple applications covering a single product—more drawings would be required.

In most cases, applicants will also pay attorney’s fees.¹⁰⁵ A survey of American Intellectual Property Law Association (AIPLA) members found that the mean charge for preparing and filing a design patent application in 2012 was \$1,942.¹⁰⁶ So a single design patent application costs approximately \$5,000.¹⁰⁷ An applicant seeking broad protection, however, may file more than one application, using broken lines to claim different parts of a particular product design.¹⁰⁸

¹⁰² MPEP, *supra* note 27, § 1503.02(I).

¹⁰³ *See, e.g.*, Car, U.S. Patent No. D717,213 (issued Nov. 11, 2014) (using seven drawings to illustrate a new vehicle design).

¹⁰⁴ Chan, *supra* note 97, at 38; *see also, e.g.*, Quinn, *supra* note 15 (“[Y]ou should anticipate paying in the range of \$600 for high quality design patent drawings.”).

¹⁰⁵ It is possible, however, for some applicants to prosecute design patent applications *pro se*. *See* MPEP, *supra* note 27, § 401 (“An applicant for patent, other than a juristic entity (e.g., organizational assignee), may file and prosecute his or her own application, and thus act as his or her own representative (*pro se*) before the Office.” (citing 37 C.F.R. § 1.31)).

¹⁰⁶ *See* AM. INTELLECTUAL PROP. LAW ASS’N (AIPLA), 2015 REPORT OF THE ECONOMIC SURVEY I-100 (2015) [hereinafter AIPLA Survey].

¹⁰⁷ This estimate includes regular PTO fees. *See* Current Fee Schedule, *supra* note 98. This overall cost would, of course, be less for small or micro-entities. *See* Current Fee Schedule, *supra* note 98; *see also* Chan, *supra* note 97, at 39–40 (“For most simple design patents, the total cost of using a lawyer in filing and prosecuting an application, from beginning to end, assuming no objections by the examiner and cooperative designers, is about \$2,500, including all legal fees, drawing fees, and micro-entity government fees. In some complex cases, though, it can cost around \$5,000.”). Some estimates are a bit lower. *E.g.*, Greg Vogler, *IP: The Importance of Design Patents*, INSIDE COUNS. (July 9, 2013), <http://www.insidecounsel.com/2013/07/09/ip-the-importance-of-design-patents> [<https://perma.cc/LX6F-RF64>] (“The typical cost for obtaining a design patent is anywhere from \$2,000 to \$4,000.”).

¹⁰⁸ *See* David R. Gerk, *The Debate over the Preferred System for Protecting Design in the United States: Patents Versus Registrations*, 26 IPL NEWSL. (ABA Section of Intellectual Property Law), Spring 2008, at 22 (suggesting that if a designer “wishes to protect as many aspects of [a core product] design in the strongest manner possible,” she might file “ten claims of varying coverage on the single [product] design”); Michael Hages, *The Design of Design Patents, Part 2: The Price of Protection*, CORE77 (Aug. 21, 2012), http://www.core77.com/blog/articles/the_design_of_design_patents_part_2_the_price_of_protection_by_michael_hages_23233.asp [<https://perma.cc/RMV9-7G9T>] (“To get really good protection, however, it may be necessary to file two, three or even four additional applications that cover different aspects of the overall design or include different combinations of design features.”).

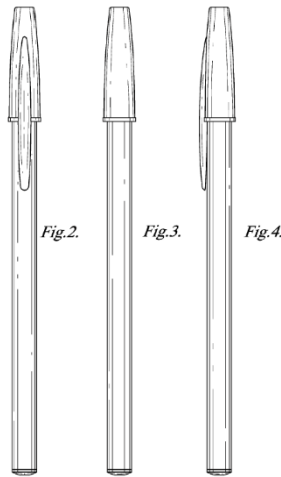
IV. THE COST OF BAD DESIGN PATENTS

A. Bad Design Patents Are Being Issued and Litigated

1. The PTO Regularly Grants Bad Design Patents

While the PTO is often criticized for granting bad utility patents,¹⁰⁹ it has received relatively little attention for granting bad design patents.¹¹⁰ The PTO regularly grants bad design patents—e.g., patents for designs that are clearly not new, not ornamental, are obvious, demonstrate little or no aesthetic conception, or would have been created without any IP incentive. Such patents are—or should be—invalid¹¹¹ as they do not further the goal of incentivizing the creation of new and creative aesthetic product designs.

Consider this recently issued design patent for a “Pen”¹¹²:



It's difficult to identify anything novel or nonobvious about this generic pen design, yet it was issued without objection by the PTO.¹¹³

¹⁰⁹ See Masur, *supra* note 7, at 698–99.

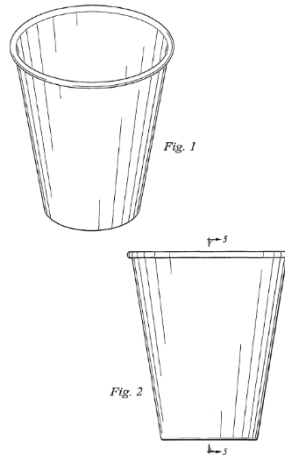
¹¹⁰ But see James Grimmelmann, *If Our Top Patent Court Screws Up Slipper Patents, How Can It Rule Sensibly on Smartphones?*, SWITCH (Sept. 24, 2013), <http://www.washingtonpost.com/blogs/the-switch/wp/2013/09/24/if-our-top-patent-court-screws-up-slipper-patents-how-can-it-rule-sensibly-on-smartphones/> [<https://perma.cc/8C42-7DG7>] (“Even a moment’s glance at [U.S. Patent No. D598,183] shows that someone was asleep on the job at the Patent Office when it was issued.”).

¹¹¹ See 35 U.S.C. §§ 102, 103 (Supp. I 2013); see also Burstein, *Visual Invention*, *supra* note 32, at 206 (arguing that designs that exhibit only minimal aesthetic conception; therefore, they should be considered obvious and, thus, unpatentable).

¹¹² Pen, U.S. Patent No. D693,876 figs. 2–4 (issued Nov. 19, 2013).

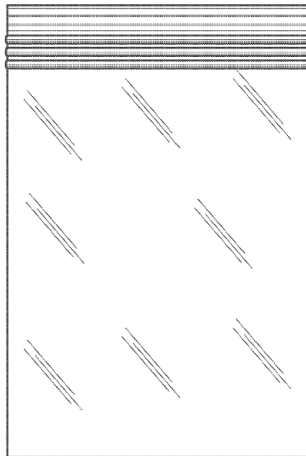
¹¹³ See *App. No. 29/423,979 Image File Wrapper*, U.S. PAT. & TRADEMARK OFF., PUB. PAT. APPLICATION INFO. RETRIEVAL (PAIR), <http://portal.uspto.gov/pair/PublicPair> [<https://perma.cc/2ZZP-Z5AG>] (enter patent application number in portal and follow link

Or consider this recently issued design patent for a “a recyclable aluminum drinking glass”¹¹⁴:



Even if this is the first time this generic cup design has been used for a cup made of recycled aluminum, a mere change in material should not be enough to render a design nonobvious.¹¹⁵

Here is one of two claimed embodiments of a patented design for a “storage bag”¹¹⁶:



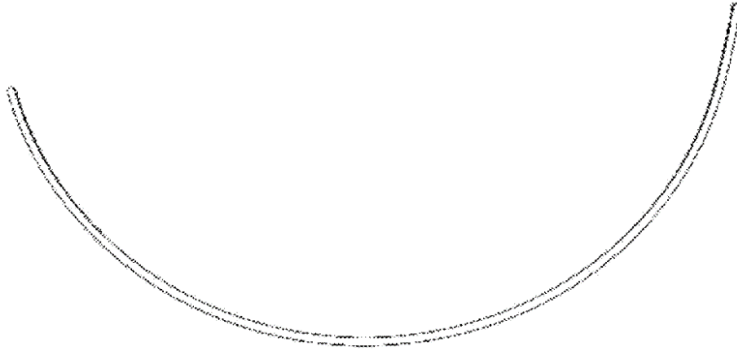
for “Image File Wrapper”) [hereinafter PUBLIC PAIR] (containing no rejections); Notice of Allowance and Fee(s) Due for App. No. 29/423,979 from U.S. Patent & Trademark Office (July 2, 2013).

¹¹⁴ U.S. Patent No. D693,645, at [57] (issued Nov. 19, 2013); *id.* at figs.1–2.

¹¹⁵ Burstein, *Visual Invention*, *supra* note 32, at 178.

¹¹⁶ U.S. Patent No. D688,564, at [57] (issued Aug. 27, 2013); *id.* at fig.5.

This patent was also issued with no objections.¹¹⁷ As was this one, which claims a design for a “bra wire”¹¹⁸:



Nothing about using a semicircle for an underwire is new or novel. It appears that the wire varies in width, according to the figures shown below¹¹⁹:



FIG. 3



FIG. 4



FIG. 5



FIG. 6

¹¹⁷ *App. No. 29/429,136 Image File Wrapper*, PUBLIC PAIR (containing no rejections).

¹¹⁸ U.S. Patent No. D687,208, at [57] (issued Aug. 06, 2013); *id.* fig. 2; *App. No. 29/384,629 Image File Wrapper*, PUBLIC PAIR (containing no rejections).

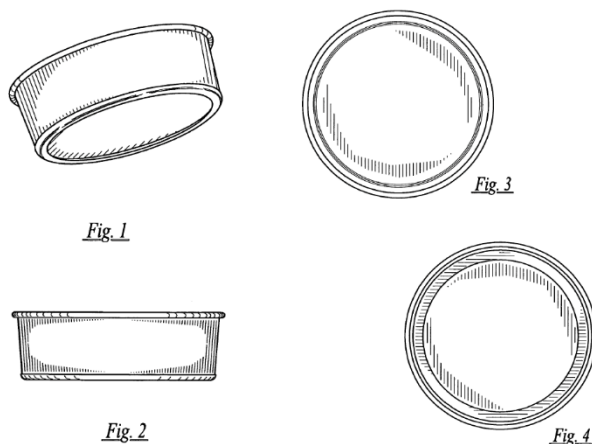
¹¹⁹ U.S. Patent No. D687,208 figs.3–6 (issued Aug. 06, 2013).

This tapering may technically be novel, but it provides no discernable aesthetic contribution—certainly none that would be material to a consumer.¹²⁰

These are not isolated examples.¹²¹ The PTO issues design patents for trite, uncreative, or obviously unpatentable designs nearly every week.¹²²

2. Bad Design Patents Are Being Asserted in Court

Not only are these bad design patents being issued, they are being litigated. For example, OurPet's Company, which markets products under brand names including DURAPET®, seems bent on suing anyone who sells stainless-steel pet bowls with non-skid bottoms.¹²³ One of its design patents, entitled "Pet Feeder with Non-Skid Lower Surface," claims the following design¹²⁴:



As can be seen from these drawings, the design is rather generic; in fact, it seems doubtful that the design was actually novel when the application was

¹²⁰ If the shape of the underwire provides a utilitarian (as opposed to an aesthetic) contribution to the art of bra-making, then the inventor should have sought a utility patent instead of a design patent.

¹²¹ See Burstein, *Standard Criticisms*, *supra* note 35, at 326–27 (providing more examples).

¹²² See Sarah Burstein, *Design Law*, TUMBLR, <http://design-law.tumblr.com/tagged/seriously%3F> [<https://perma.cc/PKG6-UDFG>] (collecting examples that strike the author as being particularly bad).

¹²³ See, e.g., Complaint ¶¶ 13, 16, No. 1:13-cv-01018, *OurPet's Co. v. Petedge, Inc.* (N.D. Ohio May 6, 2013), ECF 1 (asserting Pet Feeder with Non-Skid Lower Surface, U.S. Patent No. D565,253 (issued Mar. 25, 2008) and Covered Bowls Such as Pet Food and Water Bowls, U.S. Patent No. 8,286,589 (filed June 18, 2010)). This case appears to have settled fairly quickly. See Order of Case Dismissal, No. 1:13-cv-01018, *OurPet's Co. v. Petedge, Inc.* (N.D. Ohio Nov. 19, 2013), ECF 36.

¹²⁴ U.S. Patent No. D565,253 figs.1–4 (issued Mar. 25, 2008).

filed in 2006.¹²⁵ Nonetheless, OurPet's has repeatedly asserted it in litigation.¹²⁶

B. *The Economic Effects of Bad Design Patents*

Like invalid utility patents, invalid design patents can “stifle innovation, . . . discourage firms from entering into useful markets, and generally . . . impede the optimal functioning of the American economy.”¹²⁷ Even if never asserted against another party, “these ‘bad’ patents impose significant deadweight losses and delays in precisely those industries in which rapid progression and the growth of small-scale market participants are most important.”¹²⁸ As Jonathan Masur explained:

Invalid patents augment the costs to prospective market participants in three ways. First, a market entrant must investigate the intellectual property that exists in the field and make some preliminary inquiry as to those patents' validity. This investigation, even if cursory, can be quite expensive. Second, invalid patents can hamper a firm's ability to raise capital or write contracts with potential customers. Financial markets will be wary of firms that may not be sustainable because they traffic in infringing products. . . . Finally, firms will have reason to fear the cost of defending a lawsuit for patent infringement, not to mention the threat of having to pay licensing fees or royalty damages. Patent lawsuits of any length impose asymmetric costs upon the participants . . . , largely because patents arrive in court accompanied by a legal presumption that they are valid. Litigation, even relatively nonmeritorious litigation, thus presents a substantial threat.¹²⁹

These types of competition-detering effects can be caused by “[a] single, significant patent of plausible validity” or by “a large quantity of frivolous, obviously invalid patents within the field.”¹³⁰ This is just as true for design patents as it is for utility patents. Invalid design patents—if granted in sufficient numbers—can take a significant toll on competition.

Additionally, “search and information costs for the entering firm will be high regardless of whether these patents are ever enforced, as the market entrant is forced to comb through a dense ‘patent thicket’ in order to ascertain the boundaries of existing property rights.”¹³¹ These costs may be particularly

¹²⁵ At a minimum, the design should be deemed obvious.

¹²⁶ According to a January 22, 2015 search of PACER dockets via Bloomberg Law's “All U.S. District Court Dockets” database, it appears that OurPet's has filed—and settled—at least six other cases involving the D'253 patent. *See, e.g.*, Order and Stipulated Notice of Dismissal, No. 1:13-cv-01701, OurPet's Co. v. Arjan Impex (N.D. Ohio Dec. 16, 2014), ECF 17.

¹²⁷ Masur, *supra* note 7, at 692.

¹²⁸ *Id.*

¹²⁹ *Id.* at 696–97 (footnotes omitted) (citations omitted).

¹³⁰ *Id.* at 697.

¹³¹ *Id.*

high in the design context, as most of the best existing search technology is text-based, not image-based.¹³² While a chemical-compound inventor can easily search for patents and other references that contain a particular chemical, a designer usually cannot easily search for similarly shaped designs.

In addition to obviously invalid design patents, those that are closer to the validity borderline are also problematic. Because design patents pertain to useful articles, as opposed to purely artistic works, they can impose significant constraints on future creators—whether they are properly granted or not. This is especially true for minimally creative designs. As Gerard Magliocca noted, “there is a finite set of possible esthetic designs for something like a car or a vacuum cleaner” and, therefore, “there is a greater cost imposed on future creators by protecting marginal improvements in design than there is from protecting incremental innovations that are purely esthetic.”¹³³ Improvidently granted design protection may, therefore, be particularly problematic.

And these problems do not end when the patent term expires.¹³⁴ Even though a single design patent lasts for only 14–15 years, savvy design patent practitioners can use the PTO’s continuation rules to “evergreen”¹³⁵ design

¹³² Cf. Locke, *supra* note 54, at 44 (“[W]hen a design contains a combination of a number of elements, the patent practitioner must also consider which permutations of elements will provide the necessary coverage, while remaining patentable over the prior art. The latter point may prove particularly difficult given that most prior art searching techniques involve using words and phrases.”). That is not to say there are no resources. For example, Questel offers a visual design-searching service. See QUESTEL, USER GUIDE: ORBIT, THE QUESTEL IP PORTAL (Oct. 2011), <http://www.questel.com/index.php/en/user-guide/465-designhelp> [<https://perma.cc/F3VT-M49W>]. And in 2014, Thomson Reuters introduced an “Industrial Design Search by Subject” service. See *Industrial Design Search by Subject*, THOMSON REUTERS, <http://trademarks.thomsonreuters.com/searching/international-full-searches?id=products%2Findustrial-design-search-subject> [<https://perma.cc/K678-U2WN>]. Although this is a welcome development, it remains to be seen how useful this service will be.

¹³³ Gerard N. Magliocca, *Ornamental Design and Incremental Innovation*, 86 MARQ. L. REV. 845, 880 (2003).

¹³⁴ Admittedly, the design patent term is short compared to the terms of other IP rights. See, e.g., 17 U.S.C. § 302(a) (2012) (“Copyright in a work created on or after January 1, 1978, subsists from its creation and, except as provided by the following subsections, endures for a term consisting of the life of the author and 70 years after the author’s death.”). However, 14–15 years is an extraordinarily long time in those “industries where styles change rapidly, even seasonally.” *Industrial Design Protection: Hearings on H.R. 902, H.R. 3017, and H.R. 3499 Before the Subcomm. on Courts, Intellectual Prop., and the Admin. of Justice of the H. Comm. On the Judiciary*, 101st Cong. 492 (1990) (testimony of Harry F. Manbeck, Jr., Comm’r of Patents and Trademarks). The fashion industry would be a prime example.

¹³⁵ Cf. Lemley & Moore, *supra* note 61, at 81 (criticizing the practice of “evergreening”); Janice M. Mueller & Donald S. Chisum, *Enabling Patent Law’s Inherent Anticipation Doctrine*, 45 HOUS. L. REV. 1101, 1106 (2008) (discussing the concept of “evergreening” in the pharmaceutical context).

patent protection for a particular product for 30 or even 40 years by filing multiple applications covering different aspects of a product design.¹³⁶

The acquisition of a design patent can also help its owner gain a different type of IP protection—trade dress.¹³⁷ Product designs may be protected as trade dress if they are nonfunctional and have acquired secondary meaning—i.e., that, “in the minds of the public, the primary significance of [the design] is to identify the source of the product rather than the product itself.”¹³⁸ A design patent can help a trade dress claimant overcome each of these hurdles. Many courts view a design patent as evidence of nonfunctionality.¹³⁹ And a design patent may help the design patent owner establish (or at least, to convince a court that it has established) secondary meaning.

The fourteen-year period of design patent exclusivity can give its owner a “head start” of sorts in developing a connection between the shape of a product and its source.¹⁴⁰ And it may be more than a mere head start, for “*any* perceptible product feature or combination or arrangement of features *can* distinguish goods, and perhaps is likely to do so if, as a rule, nobody else were allowed to copy it.”¹⁴¹ The ability to claim trade dress protection for patented—or formerly patented—designs may be a form of “cheating the trademark system.”¹⁴² But it is, unfortunately, allowed by the current law.¹⁴³

¹³⁶ These numbers are based on representations made to the author by an experienced design patent prosecutor.

¹³⁷ See generally *Wal-Mart Stores, Inc. v. Samara Bros.*, 529 U.S. 205, 209 (2000) (“The breadth of the definition of [trademarks] registrable under § 2 [of the Lanham Act], and of the confusion-producing elements recited as actionable by § 43(a), has been held to embrace . . . ‘trade dress’—a category that originally included only the packaging, or ‘dressing,’ of a product, but in recent years has been expanded . . . to encompass the design of a product.” (citing to various circuit court cases)).

¹³⁸ See *id.* at 211 (quoting *Inwood Labs., Inc. v. Ives Labs., Inc.*, 456 U.S. 844, 851 n.11 (1982)).

¹³⁹ See Sarah Burstein, *Commentary: Faux Amis in Design Law*, 105 TRADEMARK REP. 1455, 1458–59 (2015) [hereinafter Burstein, *Faux Amis*] (arguing that this line of reasoning is fatally flawed).

¹⁴⁰ See Daniel H. Brean, *Enough Is Enough: Time to Eliminate Design Patents and Rely on More Appropriate Copyright and Trademark Protection for Product Designs*, 16 TEX. INTELL. PROP. L.J. 325, 364 (2008).

¹⁴¹ *Duraco Prods., Inc. v. Joy Plastic Enters., Ltd.*, 40 F.3d 1431, 1447 (3d Cir. 1994).

¹⁴² Brean, *supra* note 140, at 364 (“While designers and manufacturers have enjoyed this ‘head start’ benefit of design patents, in a sense it is cheating the trademark system. No other types of trademark rights enjoy this exclusivity period for establishing secondary meaning.”).

¹⁴³ See Mark P. McKenna, *(Dys)functionality*, 48 HOUS. L. REV. 823, 843 (2011) (“With a few notable exceptions, courts generally have not seen any conflict between trademark and design patent law, even when both apply to the same features.”). This is a larger problem that needs to be solved. And “[t]here is . . . no legitimate explanation for courts’ categorical refusal to consider the possibility that the right to copy is equally implicated where trademark law protects features that would be the subject of design patent law.” See *id.* at 846. But until this aspect of trade dress law is fixed, this type of

And trade dress protection, once established, can last as long as a design is “used in commerce.”¹⁴⁴ So a design patent, even an improvidently granted one, may be used as a stepping-stone to locking up a design in perpetuity. For example, Coca-Cola obtained a design patent on its bottle design in 1915¹⁴⁵ and later registered that design as trade dress, a registration that is still active today.¹⁴⁶

C. The Problem of Bad Design Patents Is Likely to Get Worse

Despite these problems, there has been relatively little abuse of the design patent system to date—at least as compared to the utility patent system. There have been, for example, few instances of “patent trolls” in the design patent context.¹⁴⁷ But that does not mean that these problems are not real or that the potential for abuse is not serious.¹⁴⁸ As discussed above,¹⁴⁹ the incentives and tools for design patent litigation abuse are already in place.¹⁵⁰ It is only a matter of time until we see more.

“bootstrapping” remains a very real consequence of improvident grants of design patent protection.

¹⁴⁴ Cf. *Ashley Furniture Indus., Inc. v. SanGiacomo N.A. Ltd.*, 187 F.3d 363, 376 (4th Cir. 1999) (“[T]rade dress rights, although of indefinite duration, are not necessarily perpetual. Such rights terminate if the trade dress is abandoned, or if the trade dress becomes generic through public usage.” (citation omitted)).

¹⁴⁵ See U.S. Patent No. D48,160 (issued Nov. 16, 1915).

¹⁴⁶ See The mark consists of the three dimensional configuration of the distinctive bottle, Registration No. 1,057,884.

¹⁴⁷ Admittedly, the term “patent troll” is a controversial term that does not have a single definition. See generally Mark A. Lemley & Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 TEX. L. REV. 1991, 2009 (2007) (“Defining a patent troll has proven a tricky business . . .”). But however you define “patent troll,” we still see few of them in the design patent context. One exception may be Tony Colida, who pursued a number of weak-to-meritless design patent claims against major cellphone manufacturers in the 1990s and early 2000s. But even if he could be considered a “troll,” Colida does not seem to have been a scary one, as the manufacturers defeated him handily. See, e.g., *Colida v. Nokia, Inc.*, 347 F. App’x 568, 569 (Fed. Cir. 2009) (per curiam); *Colida v. Sharp Elec. Corp.*, 125 F. App’x 993, 993 (Fed. Cir. 2005) (per curiam).

¹⁴⁸ Cf. Brief for Design Educators as Amici Curiae Supporting Appellee Apple Inc. at 27, *Apple Inc. v. Samsung Elecs. Co., Ltd.*, No. 14-1335 (Fed. Cir. Aug. 4, 2014), ECF 99 (“Samsung and the Law Professors claim that a literal reading of Section 289 could lead to absurd outcomes, such as patentees claiming the entire profit of United Airlines or the total profit from the sale of an automobile with an infringing cup-holder. It is telling that neither Samsung nor the Law Professors identifies a single case in the 127-year history of the total profit provision resembling their law school hypotheticals.”).

¹⁴⁹ See *supra* Part II.

¹⁵⁰ The entry of personal injury law firms into this space is particularly troubling. See *supra* note 24. There is some evidence that, in the wake of tort reform, some Texas lawyers switched their focus from personal injury litigation to utility patent litigation. See Xuan-Thao Nguyen, *The China We Hardly Know: Revealing the New China’s Intellectual Property Regime*, 55 ST. LOUIS U. L.J. 773, 776 n.20 (2011) (citing Julie Creswell, *So*

V. DESIGN PATENT EXAMINATION AS A COSTLY SCREEN

In evaluating the likely effect of a costly screen on social welfare, the important question is what types of (potential) patents does the design patent system screen out?¹⁵¹ Ideally, the PTO's costly screen would let through designs with high social value and screen out those with low social value. Using Masur's model, design patents can be divided into four categories: (1) design patents with high private value and high social value; (2) design patents with high private value and low (or negative) social value; (3) design patents with low private value and low social value; and (4) design patents with low private value and high social value.¹⁵² This section proceeds in two parts. First, it categorizes the potential universe of design patents into the four categories listed above. Second, it evaluates the likely effects of this screening on social welfare.

A. Categorizing Design Patents

Design patents can be grouped into four categories on axes of high and low social and private value.¹⁵³ For the purpose of this Article, "high" and "low" value are defined in reference to the cost of obtaining a design patent—approximately \$5,000. This number is important because it indicates where the screen will operate—if a potential "patentee believes that her property right will be worth less than \$[5,000] (or so), she will likely refrain from filing in the first place."¹⁵⁴ But if she believes it will be worth substantially more than that, she is less likely to be deterred.

Admittedly, it may be difficult to measure the value of a design—whether private or social—in dollars. This difficulty is further complicated by the fact that while patentable designs must be applied to (or capable of being applied to) a product, the *design's* value is not necessarily the same as the *product's* value.¹⁵⁵ If a smartphone looks great but does not work well, it is unlikely to

Small a Town, So Many Patent Suits, N.Y. TIMES (Sept. 24, 2006), http://www.nytimes.com/2006/09/24/business/24ward.html?_r=0 [<https://perma.cc/8GQF-YY7A>]; then citing Alan Cohen, *From P.I. to I.P.: Personal Injury Lawyers in Texas Want to Get into Patent Litigation, and The Roth Law Firm Is Leading the Stampede*, IP L. & BUS., Nov. 2005, at 36).

¹⁵¹ See Masur, *supra* note 7, at 701 ("[I]f the screen is not deterring harmful patents, it exists purely as a senseless source of transaction costs.").

¹⁵² See *id.* at 689.

¹⁵³ "It is not quite accurate to speak of a 'high social value *patent*,' because the privately held property right is itself unlikely to be worth anything to the public. Rather, it is the underlying invention that is socially valuable." *Id.* at 703 n.29.

¹⁵⁴ See Fagundes & Masur, *supra* note 4, at 691; see also Masur, *supra* note 7, at 701 ("[T]he PTO's costly screen will likely block low value patents, but it will not deter firms from filing for high value patents.").

¹⁵⁵ It is worth distinguishing designs from prototypical copyright works, such as books, in this respect. For prototypical copyright works, the copyrightable content—as opposed to

be a commercial success.¹⁵⁶ Even then, however, the attractive design—or some portion thereof—should still have independent value that could be sold or licensed to others.

In any case, the individual or company that creates an original¹⁵⁷ design—the “design originator”—will have the best information about its value.¹⁵⁸ The design originator is thus in the best position to decide whether to seek design patent protection.¹⁵⁹ Furthermore, the design patent system does not require design originators to be entirely clairvoyant—they have a limited period in which they can test a design on the market before deciding whether to seek patent protection.¹⁶⁰ The grace period does not provide perfect protection for those who seek to test the market before applying for patent protection. But the grace period does exist. And it provides more protection than some other design-registration regimes, which require absolute novelty.¹⁶¹

the artefact that the work is embodied in—generally drives sales. For example, most people choose a book based on its literary content, not based on the paper on which the book is printed.

¹⁵⁶ And of course there are other factors that factor into a product’s success, such as branding, network effects, product ecosystems and switching costs. Cf. Timothy R. DeWitt, *Use of Objective Evidence of Non-Obviousness in the Federal Courts*, 79 J. PAT. & TRADEMARK OFF. SOC’Y 823, 829–33 (1997) (discussing various factors courts have considered with respect to evidence of commercial success of patented products).

¹⁵⁷ That is, “original” in the copyright sense. See *Feist Publ’n, Inc. v. Rural Tel. Serv. Co.*, 499 U.S. 340, 345 (1991) (“Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity.”).

¹⁵⁸ Cf. Fagundes & Masur, *supra* note 4, at 703 (“[T]he vast majority of [utility] patentees in the modern era are major firms doing business in their inventive field. Their knowledge of the marketplace will likely allow them to make judgments far more accurate than the idea of ‘lottery tickets’ would suggest. And again, these valuations need not even be terribly fine-grained; the question is whether the patent is worth only tens of thousands of dollars or substantially more.” (footnote omitted)).

¹⁵⁹ Additionally, “[t]he PTO’s costly screen would force inventors to invest additional resources in acquiring information about the expected value of their inventions. This would cause them to be more circumspect in selecting which patents to file—precisely the outcome that would be most beneficial to society.” *Id.*

¹⁶⁰ See Burstein, *Standard Criticisms*, *supra* note 35, at 335 n.172 (discussing the grace period for design patent applications). The grace period provisions were, however, revised by the Leahy-Smith America Invents Act (AIA). See, e.g., DONALD S. CHISUM, *AMERICA INVENTS ACT OF 2011: ANALYSIS AND CROSS-REFERENCES* 20 (Dec. 5, 2011), <http://www.chisum.com/wp-content/uploads/AIAOverview.pdf> [<https://perma.cc/GX8M-C6A3>] (“New Section 102(b) retains a one-year grace period as an ‘exception.’ The ‘exception’ is quite different from old Section 102.” (footnote omitted) (referring to changes made by the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011))); see also *id.* at 137 (comparing the statutory language before and after March 16, 2013). The precise contours of the new AIA grace period are still being defined. Sarah Burstein, *Applying for Design Protection*, in *RESEARCH HANDBOOK ON DESIGN LAW* (Henning Hartwig ed., forthcoming) (manuscript at 31) (on file with the author).

¹⁶¹ See, e.g., Xiangjun (Jay) Si & Stephanie X. Wang, *Chinese Patent Law and Implementation Amendments Bring Key Changes, Interpretive Challenges*, 23 No. 5

1. *High Private Value, High Social Value*

In the first category, “there are high private value, high social value patents; these [cover] the valuable, novel inventions . . . that contribute something tangible to social well-being and might not exist but for the . . . incentives created by patents.”¹⁶² This is the type of patent the system was designed to promote and, “while the PTO’s costly screen will make these patents . . . more costly to obtain, it will likely block few or none of them.”¹⁶³

Design patents in this category share four characteristics. First, “they must be at least plausibly valid, and thus plausibly enforceable.”¹⁶⁴ Second, they must claim designs that are commercially valuable.¹⁶⁵ Design patents with these two characteristics are privately valuable—their owners should “be able to extract rents either through licensing or through production of the patented” product.¹⁶⁶

But “[i]f the patent is to have social value—if the invention behind it is to be social welfare-enhancing—a third condition must be satisfied: the patent must [claim a design] that [is] genuinely new.”¹⁶⁷ If a design is not new, the designer has not actually contributed anything to society.

And because design patents are supposed to promote *visual* invention,¹⁶⁸ a fourth condition must be satisfied in order for the patent to have social value: the design must make some type of material aesthetic contribution to the art. In other words, it must have some visual content that actually matters to consumers of the relevant product.¹⁶⁹ In some fields, like designs for silverware or fashion, a product’s appearance is an important—if not the most important—factor in purchasing decisions. The visual design would almost always make such a contribution.¹⁷⁰ But designs for internal parts of complex machinery make no such aesthetic contribution. No one buys a tractor because of the appearance of its internal gears.¹⁷¹ These types of internal, mechanical

INTELL. PROP. & TECH. L.J., May 2011, at 17, 19 (noting that China’s “2008 Patent Law . . . applies the absolute novelty standard to utility model and design patents,” with no grace period).

¹⁶² Masur, *supra* note 7, at 701 (discussing utility patents).

¹⁶³ *Id.* at 703.

¹⁶⁴ *Id.* (footnote omitted).

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

¹⁶⁷ *Id.*

¹⁶⁸ See Burstein, *Visual Invention*, *supra* note 32, at 173–74.

¹⁶⁹ This does not mean that the aesthetic contribution must be “good” in some objective or measurable sense, only that the contribution be visual and material.

¹⁷⁰ Of course, the design would still have to be novel to have social value. And the value of the visual contribution would depend on numerous other factors, like the state of the art and the type of product at issue.

¹⁷¹ This is not to say, of course, that tractor manufacturers would not be interested in monopolizing the market for replacement parts by seeking design protection for those gears. See generally William Thompson, *Product Protection Under Current and Proposed*

parts are going to be created regardless of whether design patent protection is available. The public gains nothing by protecting them. Moreover, patenting such designs raises serious concerns related to circumvention of the utility patent system.¹⁷²

All patents for novel, commercially successful aesthetic designs—i.e., new designs whose visual appearances contribute in significant part to the commercial success of a particular product—should fall into this category.

One example of a high private value, high social value design is the *Louis Ghost* chair, which was designed by Philippe Starck for Kartell.¹⁷³ The design, reminiscent of a Louis XV chair but stylized and rendered in clear plastic, is strikingly new and creative. The *Louis Ghost* chair has received critical acclaim,¹⁷⁴ been put on display in museums¹⁷⁵ and as one observer put it, “has had design-lovers coming out of their skull since its introduction in 2002.”¹⁷⁶ It has also been a remarkable commercial success. According to Kartell, it sold 1.5 million *Louis Ghost* chairs between 2002 and 2012.¹⁷⁷ It does not appear that Kartell tried to patent the *Louis Ghost* chair, even though the design certainly would have qualified for a design patent.¹⁷⁸ But if Kartell had

Design Laws, 19 U. BALT. L. REV. 271, 273 (1989) (arguing for broader, cheaper design protection that would apply to just this sort of situation). But just because a manufacturer would like to monopolize that kind of market does not mean that the law should allow it.

¹⁷² See generally Magliocca, *supra* note 133, at 854–56 (discussing the concept of “patent smuggling”).

¹⁷³ See Julie Lasky, *The Classics, Circa 2050*, N.Y. TIMES (Aug. 29, 2012), http://www.nytimes.com/2012/08/30/garden/the-classics-circa-2050.html?_r=0 [https://perma.cc/SGR7-ZRZ8].

¹⁷⁴ See, e.g., ANNE MASSEY, CHAIR 167 (2011) (describing the *Louis Ghost* as “[p]erhaps [Starck’s] most striking, and most emulated, design”); Pilar Viladas, *What’s the Big Idea?*, N.Y. TIMES MAG. (June 23, 2002), <http://www.nytimes.com/2002/06/23/magazine/what-s-the-big-idea.html> [https://perma.cc/5YZP-TF5H] (listing the *Louis Ghost* chair as one of the highlights of the International Furniture Fair in Milan); see also GEORGE H. MARCUS, MASTERS OF MODERN DESIGN: A CRITICAL ASSESSMENT 168 (“Starck’s *Louis Ghost* chair is a dead serious design for today . . .”).

¹⁷⁵ For example, it is part of the permanent collection of the Philadelphia Museum of Art. See “*Louis Ghost*” *Armchair*, PHILA. MUSEUM OF ART, <http://www.philamuseum.org/collections/permanent/292130.html?mulR=465689805|26> [https://perma.cc/WD44-V3T4].

¹⁷⁶ Caroline Stanley, *What’s Behind the Louis Ghost Chair Lust?*, FLAVORWIRE (Nov. 25, 2008), <http://flavorwire.com/3723/whats-behind-the-philippe-starck-louis-ghost-chair-hype> [https://perma.cc/8TC9-MCJS].

¹⁷⁷ See Lasky, *supra* note 173 (“Kartell . . . recently announced that 1.5 million *Louis Ghosts* have been sold since the chair’s introduction in October 2002, making it ‘the most widely sold design chair in the world.’ (The company neglected to say exactly what a ‘design chair’ is—presumably not something you unfold on the lawn or buy from Ikea.)”).

¹⁷⁸ It is possible that Kartell applied for a design patent for the *Louis Ghost* chair but was denied. If that happened, the application would not be public. See generally 35 U.S.C. § 122(b)(2)(iv) (2012) (exempting design patent applications from the publication requirement). However, given the high degree of creativity of the design and the currently low hurdles for patentability, that seems highly unlikely. Moreover, it appears that Kartell did not begin using the U.S. design patent system until a number of years after it released

obtained a design patent for the *Louis Ghost* chair, that patent would clearly belong in this category.

Notably, however, a design need not be a multimillion dollar blockbuster in order to fit in this category. As long as the design originator expects to profit more than about \$5,000 (by sale, licensing or assignment), the design patent would have high private value, as defined here.¹⁷⁹

2. High Private Value, Low Social Value

The second category includes those “with high private value and *low* or *negative* social value.”¹⁸⁰ These design patents are plausibly valid and commercially relevant.¹⁸¹ However, they have a low—or even negative—social value because they involve little or no visual invention.¹⁸² They also “raise transaction costs and business risks for commercial firms that must negotiate with patent holders, defend against infringement claims, and run the risk of being litigated out of business.”¹⁸³

Design patents for internal mechanical components—like the tractor gears discussed above¹⁸⁴—would fall into this category. Those designs do not make a material aesthetic contribution because they are not visible during normal use and because consumers do not care what they look like.¹⁸⁵ Even if the shapes of those parts were novel, they still would not be socially valuable. These parts will be created whether or not they can be patented, so there is no need for any patent incentive. Patents are supposed to be a sort of quid pro quo for innovation; in this kind of situation, the public would get nothing in exchange for the owner’s new monopoly. It could, of course, be argued that no one will make tractors unless they can monopolize the market for internal spare parts for those tractors. But that seems highly unlikely and contrary to historical evidence.

Similarly, design patents for repair parts—visible or otherwise—are undoubtedly valuable to their owners but have low or negative social value. Once a design for a car is disclosed to the public, so is the design for the fender. Providing separate protection for spare parts provides nothing more to the public—it merely provides a windfall to the car’s manufacturer.

the *Louis Ghost* chair. A July 2015 Bloomberg Law search of issued U.S. design patents showed that Kartell’s first design patent was U.S. Patent No. D632,102, for a “Shelf Arrangement,” issued in 2011.

¹⁷⁹ Notably, this anticipated profit does not have to come from direct sales; a design originator could profit from licensing or selling the design patent as well.

¹⁸⁰ Masur, *supra* note 7, at 689.

¹⁸¹ *See id.* at 704.

¹⁸² *Cf.* Fagundes & Masur, *supra* note 4, at 695 (explaining that a utility patent “might hold only small or negative social value because it involves little or no socially useful innovation”).

¹⁸³ Masur, *supra* note 7, at 704.

¹⁸⁴ *See supra* Part V.A.1.

¹⁸⁵ At least, the vast majority of normal consumers would not care.

Another example would be a design patent that reads onto an insignificant part of a commercially successful competing product. Arguably, some or all of the design patents that were found to have been infringed in *Apple v. Samsung* would fall into this category.

A patent in this category:

[M]ight be deployed offensively, with the intention of collecting awards for infringement or licensing fees; it might hold value as defensive mechanisms for protecting commercial products from competition or from suit for infringement; or it might be valuable as a signal to deter potential competitors. . . . As long as the patent can be plausibly asserted against other firms doing business in the marketplace, it will be privately valuable to its owner.¹⁸⁶

In the utility patent context, the “literature is rife with examples of patent plaintiffs who succeeded in collecting substantial infringement judgments based on patents that were never commercialized or even publicized, and which were not based on any genuine innovation.”¹⁸⁷ There is no comparable literature in the design patent context; however, that may have more to do with the fact that design patent litigation has not been nearly as popular or, to date, as lucrative as utility patent litigation. That may change in the wake of recent court decisions and, in any case, many of the same incentives and litigation-burden asymmetries observed in the utility patent context are equally applicable to the design patent context. There is good reason to believe that design patents in this category “can be used to collect significant licensing fees or litigation awards from profitable companies.”¹⁸⁸

This is especially true when these patents are drafted to read onto the competing product *ex post*. As discussed above, sophisticated design patentees can take advantage of PTO continuation practices to broaden their patent claims to cover competing designs.¹⁸⁹ Consider the following hypothetical. A manufacturer launches a new chair design and files a timely design patent application claiming the entire design. A competitor sees the new chair and designs around it, creating a new chair that looks nothing like the claimed chair except for one portion of one of the legs. The competitor’s chair would not infringe the design claimed in the manufacturer’s original design patent application. But if that application is still pending, the manufacturer could file a new continuation application claiming only the design of that portion of the leg, effectively capturing the competitor’s new design. In this scenario, the patentee has made no new contribution to the public—the entire chair design, including the leg portion, has already been disclosed to the public. The new patent would have negative social value. But it would have high private value

¹⁸⁶ Masur, *supra* note 7, at 704 (citations omitted).

¹⁸⁷ *Id.*

¹⁸⁸ Fagundes & Masur, *supra* note 4, at 693.

¹⁸⁹ See *supra* Part II.B.

to the patentee, who could then seek disgorgement of all of the competitor's profits under § 289.¹⁹⁰

One might argue that the availability of this type of *ex post* partial claiming is necessary to incentivize the creation of the entire chair. That seems unlikely. If the leg portion was a truly innovative portion of a chair design, there is nothing stopping the applicant from claiming the leg design in the first place.¹⁹¹ Forcing design originators to claim such designs *ex ante* would have the beneficial effect of providing the public and potential competitors with notice of the claim.

It is important to note that, because they are so valuable to their owners, "the PTO's costly screen will not serve as a meaningful barrier" against this type of design patent.¹⁹² So "a costly screen can never fully substitute for substantive patent examination. However, a screen can serve as a useful complement to a system of substantive examination."¹⁹³

Unfortunately, this potential synergy cannot be realized in the current design patent system because the PTO does not provide an effective substantive screen. There are two main problems with the PTO's substantive screen for design patents: (1) a failure to invest in effective prior art searching and categorization; and (2) Federal Circuit law.

First, as discussed above, it is particularly difficult to locate and search for design patent prior art. However, the PTO appears to have done little to address this problem. The PTO could, for example, invest in better image-search technology. It could also use a different system for coding and classifying designs, akin to how it classifies design trademarks.

But even if the PTO got better at finding prior art, the second problem would remain—Federal Circuit case law. The U.S. Court of Appeals for the Federal Circuit, which has had exclusive appellate jurisdiction in design patent cases since 1982, has quietly eroded the statutory requirements for design patentability to the point where it is extremely difficult for the PTO to reject design patent applications on the merits.¹⁹⁴ For example, the Federal Circuit has made it extremely difficult for the PTO to reject design patent claims as nonobvious.¹⁹⁵ It has also "effectively read out of the statute any affirmative

¹⁹⁰ 35 U.S.C. § 289 (2012).

¹⁹¹ Like the fender example above, this separate patent would likely have low or negative social value. But forcing the applicant to make its claim *ex ante* would help ameliorate the situation.

¹⁹² Fagundes & Masur, *supra* note 4, at 695.

¹⁹³ Masur, *supra* note 7, at 705–06.

¹⁹⁴ See generally Sarah Burstein, *Design Patent Myths—It's Really Difficult to Get a Design Patent*, FAC. LOUNGE (Oct. 4, 2013), <http://www.thefacultylounge.org/2013/10/really-difficult-to-get-a-design-patent.html> [<https://perma.cc/6RRV-RG3Q>]. This also makes it extremely difficult for courts to invalidate design patents, once issued.

¹⁹⁵ See Burstein, *Standard Criticisms*, *supra* note 35, at 324–28; see also Sarah Burstein, *Design Patent Nonobviousness Jurisprudence—Going to the Dogs?*, PATENTLY-O (Apr. 3, 2014), <http://patentlyo.com/patent/2014/04/design-nonobviousness-jurisprudence.html> [<https://perma.cc/5DT8-44V3>] ("For a while there, it looked like it was

requirement that the patentee's design contain aesthetic ornamental features."¹⁹⁶ The Federal Circuit only requires that a claimed design be "primarily ornamental," as opposed to "primarily functional."¹⁹⁷ Under this standard, a design will be deemed "ornamental" unless it "is dictated solely by the function of the article of manufacture"¹⁹⁸ or if it "is always concealed in its normal and intended use."¹⁹⁹

The Federal Circuit has construed "the 'normal and intended use' of an article" extraordinarily broadly, stating that it consists of "a period in the article's life, beginning after completion of manufacture or assembly and ending with the ultimate destruction, loss, or disappearance of the article."²⁰⁰ This test excludes few designs, even those for items such as hip implants.²⁰¹

And according to the Federal Circuit, "[a] design is not dictated solely by its function when alternative designs for the article of manufacture are available."²⁰² Because there are nearly always alternative designs available, this is, in effect, a nontest.²⁰³ Indeed, the PTO regularly grants design patents

becoming practically impossible to invalidate any design patents under § 103. Now we at least know that it's still possible." (discussing *MRC Innovations, Inc. v. Hunter Mfg., LLP*, 747 F.3d 1326 (Fed. Cir. 2014))).

¹⁹⁶ Christopher Buccafusco, *Making Sense of Intellectual Property Law*, 97 CORNELL L. REV. 501, 527 (2012). So today, neither the PTO nor the Federal Circuit evaluate designs for aesthetic content or appeal.

¹⁹⁷ See *MPEP*, *supra* note 27, § 1504.01(c), at 1500-18 (quoting *L.A. Gear Inc. v. Thom McAn Shoe Co.*, 988 F.2d 1117, 1123 (Fed. Cir. 1993)).

¹⁹⁸ *Best Lock Corp. v. Ilco Unican Corp.*, 94 F.3d 1563, 1566 (Fed. Cir. 1996). There are a few outlier cases that advocate a different approach. See *Burstein, Faux Amis*, *supra* note 139, at 1456 n.13. But the Federal Circuit recently reaffirmed that "an inquiry into whether a claimed design is primarily functional should begin with an inquiry into the existence of alternative designs." *Ethicon Endo-Surgery, Inc. v. Covidien, Inc.*, 796 F.3d 1312, 1330 (Fed. Cir. 2015).

¹⁹⁹ *In re Webb*, 916 F.2d 1553, 1557 (Fed. Cir. 1990) (quoting *In re Stevens*, 173 F.2d 1015, 1016 (C.C.P.A. 1949)); see also *id.* ("[T]he [ornamentality] inquiry must extend to whether at some point in the life of the article an occasion (or occasions) arises when the appearance of the article becomes a 'matter of concern.'").

²⁰⁰ *In re Webb*, 916 F.2d at 1557-58.

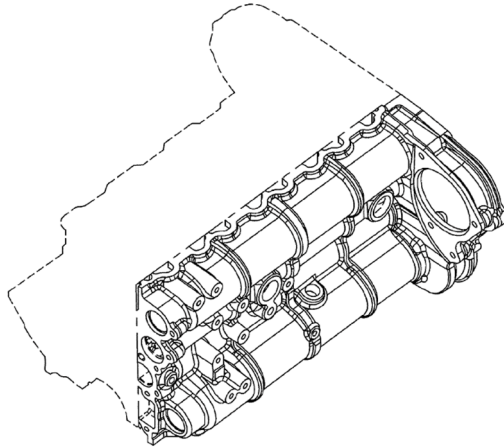
²⁰¹ See *id.* at 1555 (reversing and remanding the PTO's rejection of U.S. Design Patent Application Serial No. 833,470, which claimed a design "for a grooved femoral hip stem prosthesis").

²⁰² *Best Lock Corp.*, 94 F.3d at 1566 (citing *L.A. Gear*, 988 F.2d at 1123). The "alternative design must . . . provide 'the same or similar functional capabilities'" as the claimed design. *Ethicon*, 796 F.3d at 1331 (quoting *Rosco, Inc. v. Mirror Lite Co.*, 304 F.3d 1373, 1378 (Fed. Cir. 2002)).

²⁰³ But see Jason J. Du Mont & Mark D. Janis, *Functionality in Design Protection Systems*, 19 J. INTEL. PROP. L. 261, 302 (2012) (approving of both the "dictated by" standard and the alternative designs approach). In addition to being a nontest, the alternative designs approach also appears based on a dubious premise—namely, that designs should be protected unless there is a competitive need *not* to protect them. To be clear, this Article does not recommend the adoption of a standard of ornamentality that would require the PTO or courts to evaluate the aesthetic *quality* of a design. However,

for designs that are not “ornamental” in any meaningful sense of the word, let alone designs that were created “for the purpose of ornamenting.”²⁰⁴

For example, a design patent was recently granted for this portion of an internal combustion engine²⁰⁵:



This is not an isolated example. The PTO frequently grants design patents for similar types of designs.²⁰⁶ But under current Federal Circuit law, it pretty much has to. Unless and until the law is improved, it will remain difficult for the PTO to provide any type of meaningful substantive screen.

3. Low Private Value, Low Social Value

The third category contains design patents with low private and low social value.²⁰⁷

they should be required to give effect to the statutory requirement. Ideally, the test would require some evidence of aesthetic conception. *See generally* Burstein, *Visual Invention*, *supra* note 32, at 206 (discussing the concept of “visual invention”). At a minimum, it should require some showing of materiality—i.e., that the appearance of the claimed portion(s) actually matter to the ordinary user of the product into which the designed article of manufacture is incorporated. *But see* Du Mont & Janis, *supra*, at 300 (“Courts should expunge the visibility of ‘matter of concern’ test from the jurisprudence . . .”).

²⁰⁴ *See In re Carletti*, 328 F.2d 1020, 1022 (C.C.P.A. 1964).

²⁰⁵ U.S. Patent No. D719,977 fig.1 (issued Dec. 23, 2014).

²⁰⁶ *See* Sarah Burstein, *Design Patent Myths—Only Artistic Designs Can Be Patented*, FAC. LOUNGE (Oct. 16, 2013), <http://www.thefacultyloounge.org/2013/10/design-patent-myths-only-artistic-designs-can-be-patented.html> [<https://perma.cc/X4W7-DFVF>] (collecting examples); Sarah Burstein, *Design Law*, TUMBLR, <http://design-law.tumblr.com/search/not+ornamental> [<https://perma.cc/G95F-JAFD>] (collecting more).

²⁰⁷ *See* Fagundes & Masur, *supra* note 4, at 696.

Here, because the private value of any individual patent is less than the cost required to obtain it, patent applicants will frequently elect *not* to file for these types of patents. In that sense it is appropriate to think of this category as containing “potential” patents—patents that would exist in large numbers *but for* the costly screen. That is not to say that there will be no such patents—applicants will sometimes err in valuing their own inventions, take gambles, or patent for any number of reasons not involving the prospect of financial gain. But the number of these patents will be much lower than it would be absent the PTO’s costly screen.²⁰⁸

There are two main types of patents in this category—those that make up the “patent thicket” and nuisance patents.

The “patent thicket” consists of “essentially worthless patents that are allowed to lie fallow and are rarely enforced, but that nonetheless drive up search costs and increase litigation risk for firms seeking to do business in the relevant market.”²⁰⁹ These patents “have very low value to their owners—they are valuable only to the extent that their owners wish to keep competitors out of the marketplace.”²¹⁰ Therefore, “they almost certainly diminish social welfare by retarding competition without producing any meaningful inventive quid pro quo.”²¹¹ In the utility patent context, it is estimated that the patent thicket imposes hundreds of millions of dollars in social costs.²¹² While no similar studies have been done regarding design patents,²¹³ it is likely that the cost is also high. Even if this category only contains a small number of designs, there would likely be many more if design patents were less expensive.²¹⁴

The second type of design patents with low private and low social value are those “that are useful principally as mechanisms for filing nuisance lawsuits.”²¹⁵ Even though design patents are relatively narrow in scope, they carry with them the potential for enormous monetary awards because a successful patent owner can recover the infringer’s total profits, without apportionment.²¹⁶ This high potential exposure makes it risky to defend a design patent lawsuit. The risk is amplified by the fact that there is little case

²⁰⁸ *Id.* (footnote omitted).

²⁰⁹ Masur, *supra* note 7, at 706.

²¹⁰ *Id.*

²¹¹ *Id.*

²¹² *Id.*

²¹³ At least, not to the best of this author’s knowledge.

²¹⁴ See Masur, *supra* note 7, at 706–07 (“Understanding the effect of the PTO’s costly screen requires investigating the counterfactual: how much greater would the social costs of the patent thicket be if obtaining a patent was effectively free? . . . Nonetheless, without any sort of costly screen the number of granted patents would likely increase substantially . . .”).

²¹⁵ See *id.* at 707.

²¹⁶ See *supra* Part II.C (discussing the special design patent disgorgement remedy codified at 35 U.S.C. § 289 (2012)).

law on many design patent issues. And like all federal litigation, design patent litigation is expensive.²¹⁷ Even if a design patent is obviously invalid or not infringed, a defendant will normally have to litigate through at least the summary judgment stage in order to prove it.²¹⁸ If a design patent owner makes a settlement demand that is less than the cost to litigate that far, the owner may be able to reap significant financial rewards even for the most improvidently granted design patent.²¹⁹ So even weak infringement claims can have significant nuisance value.

Although litigating a design patent case may not be as expensive as litigating a utility patent case,²²⁰ design patent owners have one significant weapon in their arsenal that utility patent owners do not—a remedy of disgorgement *without* apportionment.²²¹ All patent owners can seek disgorgement of an infringer's profits as a remedy for infringement. In the utility patent context, the patent owner must provide evidence connecting some portion of the infringer's product to the patented feature or features.²²² But in the design patent context, there is no such requirement.²²³ If any part of a product is found to infringe a design patent, the defendant must pay its entire profit for that product—even if the design patent only claims a small portion of one part of a product's design.²²⁴ This is one reason why the original verdict in *Apple v. Samsung* was so large, despite the fact that Apple only prevailed on its infringement claims for relatively minor portions of the accused

²¹⁷ See generally AIPLA SURVEY, *supra* note 106, at 37–39 (reporting median litigation costs for various types of IP cases, based on surveys taken from 2005 through 2015).

²¹⁸ Recently, however, some courts have shown a willingness to dismiss very weak claims at the pleading stage. See generally Sarah Burstein, *Federal Circuit Affirms Rule 12 Dismissal of a Design Patent Case*, PATENTLY-O (July 14, 2014), <http://patentlyo.com/patent/2014/07/federal-circuit-dismissal.html> [<https://perma.cc/YFD3-8RKB>] (discussing *Anderson v. Kimberly-Clark Corp.*, 570 Fed. App'x 927 (Fed. Cir. 2014)). Although this is a positive development, it does not solve this problem entirely.

²¹⁹ It may be that the nuisance value of some such patents may exceed \$5,000; in that case, they would have high private value and the PTO's costly screen would not deter originators from seeking design patent protection. But even if some of these low-quality patents are still being applied for—and granted—there are almost certainly fewer of them than there would be absent the PTO's costly screen.

²²⁰ There does not seem to be any good data on the cost of design patent litigation. However, the author has been told by litigators that design patent cases are not necessarily cheaper than utility patent cases.

²²¹ See 35 U.S.C. § 289 (2012).

²²² See Lemley, *supra* note 79, at 221–22.

²²³ See *Apple Inc. v. Samsung Elecs. Co., Ltd.*, 786 F.3d 983, 1001 (Fed. Cir. 2015) (rejecting Samsung's argument that “[t]he damages . . . should have been limited to the profit attributable to the infringement because of ‘basic causation principles’”).

²²⁴ See *id.* at 1001–02 (“In reciting that an infringer ‘shall be liable to the owner to the extent of [the infringer’s] total profit,’ Section 289 explicitly authorizes the award of total profit from the article of manufacture bearing the patented design.” (alteration in original)).

smartphones.²²⁵ Therefore, the nuisance value of even the weakest claim of infringement for the most obviously invalid design patent may still be significant.

In the utility patent context, Jonathan Masur has observed that:

[T]hese types of nuisance lawsuits can impose significant costs on commercial firms. . . . [T]hreats of multiple small lawsuits can dissuade firms from entering new markets and increase the costs of capital. Each forgone potential market opportunity creates costs for consumers who must pay higher prices or are deprived of some good. Nuisance lawsuits also impose transaction costs as firms expend resources in filing and settling them, even where they do not proceed to trial. For commercial firms, particularly the smaller firms that are especially vulnerable to harassing litigation, nuisance lawsuits can generate substantial business expenses.²²⁶

These arguments apply with equal force to design patents. And while it is admittedly difficult to measure “the net social welfare costs attributable to these types of nuisance lawsuits . . . [n]onetheless, it seems reasonable to believe that nuisance lawsuits (and the threat of nuisance lawsuits) impose substantial social costs.”²²⁷ We can expect these costs to grow as interest in design patent litigation grows.

Both of these types of low social value design patents are “likely blocked by the PTO’s costly screen in substantial numbers.”²²⁸ That is because:

The upfront costs of obtaining a patent forces firms and inventors to at least consider whether an application is worth filing before adding another useless patent to the thicket. And when patents cost more to obtain than they can be used to extract in one or two nuisance settlements, they become substantially less attractive as a business tool and less open to exploitation.²²⁹

Therefore, the PTO’s costly screen has a yet-unrecognized role in blocking at least some harmful design patents.

But if this is true, why is the PTO still granting so many bad patents? Aside from human error, there are at least two possible explanations. First, as mentioned above, the Federal Circuit has significantly eroded the substantive requirements for design patentability. This makes it extraordinarily difficult for the PTO to reject any design patent claims, especially in light of the presumption of patentability. Second, the PTO’s current fee structure does little to target potentially problematic claiming practices. The costly screen

²²⁵ See *supra* Part II.C.

²²⁶ Masur, *supra* note 7, at 708–09 (footnote omitted) (citations omitted).

²²⁷ *Id.* at 709.

²²⁸ *Id.* at 710.

²²⁹ *Id.* (citation omitted).

could be fine-tuned to provide further incentives for applicants to claim only what they need—and no more.²³⁰

But despite these problems and the continuing parade of bad design patents flowing from the PTO, there is some evidence that the costly screen is working. Consider Europe. The cost of a Registered Community Design (RCD) is much cheaper than the cost of a design patent.²³¹ And the substantive requirements are similar enough—at least under current Federal Circuit case law—to create a kind of natural experiment.²³² According to the brochure for the April 2013 “10 Years Community Design” conference:

On 1 April 2003, the Office for the Harmonization in the Internal Market (OHIM) registered its very first RCD applications. Since that date, the RCD has grown in popularity. Nearly 720,000 designs have been registered over the course of the past decade, increasing at the rate of 87,000 a year.²³³

By contrast, by April 9, 2013, the PTO had issued less than 680,000 design patents.²³⁴ So OHIM issued more RCDs in 10 years than the PTO did in over 170 years. And many design originators are large companies who seek protection both in the United States and Europe. This suggests that the cost of American design patent protection is, in fact, discouraging applicants from seeking more design patents than they might if patents were cheaper—effectively voting with their fees as to which designs they believe are the most

²³⁰ See generally *infra* Part VI.

²³¹ The basic registration fee is currently €230. *Fees Directly Payable to EUIPO*, EUR. UNION INTELL. PROP. OFF., <https://euipo.europa.eu/ohimportal/en/rcd-fees-directly-payable-to-euipo> [<https://perma.cc/Y2EH-YTU8>] (last updated Feb. 22, 2016) (EUIPO was previously called the Office for Harmonization in the Internal Market (OHIM) prior to Mar. 23, 2016). And EUIPO has structured its fees to provide significant discounts for designs filed in multiple applications. If 10 designs are filed together in the same application, that basic fee only applies to the first design; the registration fee for each of the other nine designs will be reduced to €115 per design. *Id.* If more than 10 designs are filed together in the same application, the registration further drops to €50 “for each design from the 11th design onwards.” *Id.*

²³² Specifically, “[a] design shall be protected by a Community design to the extent that it is new and has individual character.” Council Regulation 6/2002, art. 4(1), 2001 O.J. (L 003) (EC), (amended by Council Regulation 1891/2006, 2006 O.J. (L 386) (EC) amending Regulations (EC) 6/2002 and (EC) No 40/94 to give effect to the accession of the European Community to the Geneva Act of the Hague Agreement concerning the international registration of industrial designs); see also *id.* arts. 5–6 (elaborating on these requirements).

²³³ OFFICE FOR HARMONIZATION IN THE INTERNAL MARKET, 10 YEARS COMMUNITY DESIGN (Apr. 8–9, 2013), http://gallery.mailchimp.com/20507f2355b6bd2ec6b352881/files/10_years_conference_brochure_3.pdf [<https://perma.cc/7QBH-MF3L>].

²³⁴ See Bank Teller Counter, U.S. Patent No. D679,885 (issued Apr. 9, 2013) (the highest-numbered design patent issued on that date).

valuable. Importantly, there is no indication that the European system is encouraging a higher level or better quality of designs.²³⁵

A comparison with Europe may be also instructive with respect to nuisance suits. In Europe, Community Designs are registered without substantive examination and, therefore, many are likely invalid. Nonetheless, companies seem to be aggressive in enforcing these rights, at least in the context of sending cease-and-desist letters.²³⁶ And while there has not been a flood of Community Design litigation, that may have more to do with the prevalence of fee-shifting in European jurisdictions than anything else.²³⁷

4. *Low Private Value, High Social Value*

The final category consists of design patents with low private and high social value. There appear to be few designs in this category—or, at least, far fewer than proponents of cheaper design protection suggest. A design that is truly valuable in and of itself should be valuable to its creator, whether she markets a product herself or licenses the design to someone else.²³⁸ Even for

²³⁵ Indeed, at least one observer is sharply critical of the general level of quality of RCDs. See Mario Franzosi, *Design Protection Italian Style*, J. INTELL. PROP. L. & PRAC. 599, 601 (2006) (“Take a look at what is registered at OHIM in Alicante. Most of those registered designs represent an array of simple, naïf, and elementary formal realizations. Most of them are not a work of design, because they are simply ugly. . . . Do they have an individual character to the informed user? To me, they are common-or-garden.”).

²³⁶ See Rebecca Tushnet, *Intellectual Property at the Edge Part 1*, REBECCA TUSHNET’S 43(B)LOG (Apr. 16, 2012), <http://tushnet.blogspot.com/2012/04/intellectual-property-at-edge-part-1.html> [https://perma.cc/8453-AZ2R] (“[O]ur conversations with LVMH etc. suggest they think C&Ds are constant.” (quoting/paraphrasing Jeanne Suk)).

²³⁷ Community Design cases are heard in member-state courts. See generally Philip P. Soo, Note, *Enforcing a Unitary Patent in Europe: What the U.S. Federal Courts and Community Design Courts Teach Us*, 35 LOY. L.A. INT’L & COMP. L. REV. 55 (2012). And many member states have loser-pays systems. See W. Kent Davis, *The International View of Attorney Fees in Civil Suits: Why Is the United States the “Odd Man Out” in How It Pays Its Lawyers?*, 16 ARIZ. J. INT’L & COMP. L. 361, 412–14 (discussing the “loser pay” rule used in civil law countries) (1999); Werner Pfennigstorf, *The European Experience with Attorney Fee Shifting*, 47 LAW & CONTEMP. PROBS. 37, 44 (1984) (reviewing the fee-shifting systems employed in twelve European countries); Anna Mayergoyz, Note, *Lessons from Europe on How to Tame U.S. Patent Trolls*, 42 CORNELL INT’L L.J. 241, 266–67 (2009) (discussing the “loser pays” policy throughout Europe generally);

²³⁸ Cf. Masur, *supra* note 7, at 712 (“Any truly novel, commercially relevant invention—i.e., any socially productive invention—will give rise to a privately valuable [utility] patent on that invention.”). Of course, whether that value exceeds \$5,000 is a different question, which may have more bearing on what the optimal cost of design patent examination should be—assuming it’s some not-insignificant amount. Additionally, it could be argued that a design that does not have commercial value is not, in fact, “good” design. See generally HAROLD VAN DOREN, INDUSTRIAL DESIGN: A PRACTICAL GUIDE xvii (1940) (“Stripped of hocus-pocus, the goal of design is sales—at a profit.”); Michael Brady, *Art and Design: What’s the Big Difference?*, MICHAEL BRADY ART DESIGN (Dec. 1, 2014), http://www.michaelbradydesign.com/Blog/?page_id=1227 [https://perma.cc/B9CB-

small design firms or solo designers who may be short on cash, there are ways to get funding to protect and commercialize promising designs—including seeking angel investors or crowdfunding.²³⁹

There are, admittedly, some types of designs that would appear—at least at first glance—to fall into this category, such as designs for the global poor. According to materials published in connection with an exhibit at the Cooper Hewitt, Smithsonian Design Museum, “[o]f the world’s total population of 6.5 billion, 5.8 billion people, or 90%, have little or no access to most of the products and services many of us take for granted; in fact, nearly half do not have regular access to food, clean water, or shelter.”²⁴⁰ The 2007 Cooper Hewitt exhibition, entitled *Design for the Other 90%*, “explore[d] a growing movement among designers to design low-cost solutions for this ‘other 90%.’”²⁴¹ These types of designs have “high social value” in a general sense.²⁴² And they likely have low private value because patents for such designs are unlikely to be particularly lucrative assets.²⁴³ But if these types of products are not commercially viable, it is not because U.S. design patents are too expensive—it is because the people who need these products cannot afford to buy them.²⁴⁴ Making design patents cheaper would not meaningfully change that calculus.

9YHS] (“If it doesn’t get the job done, the design is considered not good, or worse, not successful. Does the design serve the product? Does it accomplish an end—does it sell, inform, persuade, direct or entertain? Typically, lack of success in these ways (often described statistically or qualitatively) is considered a defect in the design.”);

²³⁹ See generally Tim Maly, *New Crowdfunding Site Seeks to Protect Backers of Industrial Design*, WIRED (Dec. 8, 2012), <http://www.wired.com/2012/12/christie-street-crowdfunding/> [<https://perma.cc/T5F2-7XXZ>] (discussing various sites, including “Christie Street, a crowdfunding site devoted exclusively to physical products”).

²⁴⁰ Smithsonian Design Museum, *Design for the Other 90%*, COOPER HEWITT, <http://archive.cooperhewitt.org/other90/other90.cooperhewitt.org/about/index/html> [<https://perma.cc/E4DP-DYBF>].

²⁴¹ *Id.*

²⁴² These types of designs may, however, be less concerned with the type of visual invention that design patents are supposed to protect. So they might not necessarily have “high social value” in the sense at issue here.

²⁴³ However, these types of designs might have other types of private value for their designers, in a more general sense. For example, they might bring a sense of fulfillment that purely commercial work does not. Or they might win the designer awards or renown that allow her to charge a premium on later projects. So, even if these designs do belong in this category, it is still possible that these designs might be sufficiently incentivized without the need for an IP incentive.

²⁴⁴ They are, then, somewhat analogous to “orphan medicines” in the utility patent context. Cf. Masur, *supra* note 7, at 712–13 (“Orphan drugs are surely low private value/high social value inventions in the most literal sense: these drugs would be valuable to society if manufactured and distributed, but no firm can make a great enough profit from them to render their development commercially worthwhile. Yet this fact is not at all attributable to the cost of obtaining a patent on the drugs. . . . The \$22,000 cost of obtaining a patent is simply irrelevant to the calculation.” (citation omitted)).

It could be argued that most (or all) *haute couture* designs belong in this category. Many people would deem at least some of these designs to have great social value. However, these designs are rarely profitable, in and of themselves.²⁴⁵ Once a design is knocked off, it may be difficult—if not impossible—to license. But the cost of getting design patents for each and every design in a collection would be prohibitively expensive for most designers.²⁴⁶ Nonetheless, *haute couture* collections continue rolling down the runways season after season. And the American fashion industry is not only surviving; it is thriving.

If, in fact, most fashion designers cannot afford design patents and design appropriability were truly necessary, we might expect the PTO's costly screen to have deleterious effects on the industry. But we've seen exactly the opposite. One explanation might be that the fashion industry has adapted to its low-IP environment. Even though the *couture* collections themselves may not be profitable, they are not sold in a vacuum. "For many major firms, couture function[s] . . . as a loss leader—a way to polish the image of an apparel brand and foster lucrative licensing opportunities" in other markets.²⁴⁷ Or it could be that fashion designers are leveraging other forms of IP, like trademarks, to internalize a sufficient amount of the benefit of these innovative designs to make their continued production worthwhile.²⁴⁸

²⁴⁵ See Amy L. Landers, *The Anti-Economy of Fashion; An Openwork Approach to Intellectual Property Protection*, 24 FORDHAM INTELL. PROP. MEDIA & ENT. L.J. 427, 475 (2014) ("[D]espite the high price tags, some of the most creative, original *haute couture* collections are rarely profitable.").

²⁴⁶ See generally Burstein, *Standard Criticisms*, *supra* note 35, at 334–35 (discussing arguments made on this basis).

²⁴⁷ KAL RAUSTIALA & CHRISTOPHER SPRIGMAN, *THE KNOCKOFF ECONOMY: HOW IMITATION SPARKS INNOVATION* 24 (2012); see also Landers, *supra* note 245, at 476 ("As fashion critic Cathy Horyn explains, 'nobody expects to make money selling \$30,000 dresses. That's not what haute couture exists for. It's to generate publicity for all the other products, perfume, for instance, that a company sells.'" (quoting Cathy Horyn, *Is There Room for Fashion at the Paris Haute Couture Shows?*, N.Y. TIMES (July 25, 1999), <http://www.nytimes.com/1999/07/25/style/fashion-review-is-there-room-for-fashion-at-the-parishaute-couture-shows.html> [<https://perma.cc/472B-ANJ8>])); Susan Scafidi, *Intellectual Property and Fashion Design*, in 1 INTELLECTUAL PROPERTY AND INFORMATION WEALTH: ISSUES AND PRACTICES IN THE DIGITAL AGE 115, 117 (Peter K. Yu ed., 2007) ("Today, the haute couture serves primarily as an advertisement for its designers' own ready-to-wear styles . . .").

²⁴⁸ Cf. David Goldenberg, *The Long and Winding Road, A History of the Fight Over Industrial Design Protection in the United States*, 45 J. COPYRIGHT SOC'Y USA 21, 22 (1997) ("[T]hese manufacturers of consumer goods cannot protect themselves from design pirates, and thus are forced to either eliminate their design costs in order to meet price competition or to build a premium brand name in order to create a premium trademark for their goods (and charge an even higher premium for the 'real' Thermos vacuum bottle)."). One other explanation might be misinformation; there are widespread misconceptions about whether fashion designs can even get design patents.

This phenomenon is not limited to *haute couture*. Commentators and lobbyists have long maintained that there are many markets where producers sell a large number of designs each season, but “few of the designs which are produced and tried on the public catch the public fancy.”²⁴⁹ It is often argued that, in some industries, a company may release dozens of designs per season and not know until later which, if any, will be commercially viable.²⁵⁰ The design patent becomes something like a lottery ticket.²⁵¹

But if a design originator cannot know—even roughly—the potential value of a given design in advance, that suggests that the value might not be a result of the design itself but due to, for example, a larger trend.²⁵² As with utility patents, “even if the notion of [design] patents as lottery tickets is an accurate representation of reality, it is not clear that it is one best left in place. Massive quantities of low-value patents impose significant negative externalities upon other firms seeking to do business in the same markets.”²⁵³ Forcing companies to be selective about what they patent is a feature of the system, not a bug.

It is not clear why the design patent system—or any design-protection regime—should go out of its way to support and encourage a business model that, by definition, results in the production of numerous unwanted products. Especially when those products will end up in a landfill.²⁵⁴ In the future, the need to manufacture items prior to sale may decrease or even disappear due to

²⁴⁹ *Vestal Bill*, *supra* note 1, at 484.

²⁵⁰ See LIBRARY OF CONGR., COPYRIGHT OFFICE, SECOND SUPPLEMENTARY REPORT OF THE REGISTER OF COPYRIGHTS ON THE GENERAL REVISION OF THE U.S. COPYRIGHT LAW: 1975 REVISION BILL Ch. VII at 4–5 (Draft ed. 1975) (stating that one of “[t]he main arguments usually advanced against the patent law as a means of protecting designs” is that “[a]n applicant with several new designs has no way of knowing which will be popular, but in most cases cannot afford to apply for design patents on all of them”); Goldenberg, *supra* note 248, at 22 (“The needs of consumer products designers are different from those of creators in other markets in another respect. While a single new drug may sell millions of units, a consumer product company may design several hundred products or product variations to be sold for a given season in the hope that a few are successful. A regime which requires lengthy advanced registration for each product is simply unwieldy for this market.”).

²⁵¹ See Masur, *supra* note 7, at 713 (“It is also possible that patents function in some cases as lottery tickets: an inventor might file for large numbers of patents, hoping (but not knowing) whether one will become valuable.” (citing F.M. Scherer, *The Innovation Lottery*, in EXPANDING THE BOUNDARIES OF INTELLECTUAL PROPERTY: INNOVATION POLICY FOR THE KNOWLEDGE SOCIETY 11 (Rochelle Cooper Dreyfus et al. eds., 2001))).

²⁵² Burstein, *Standard Criticisms*, *supra* note 35, at 331.

²⁵³ See Masur, *supra* note 7, at 713–14 (citations omitted).

²⁵⁴ See generally WILLIAM McDONOUGH & MICHAEL BRAUNGART, CRADLE TO CRADLE: REMAKING THE WAY WE MAKE THINGS (2002); Gianfranco Zaccai, *Art and Technology: Aesthetics Redefined*, in DISCOVERING DESIGN: EXPLORATIONS IN DESIGN STUDIES 4 (Richard Buchanan & Victor Margolin eds., 1995) (“Too many of the things we produce, use, and discard force us to make social and ecological compromises for the sake of too narrowly defined and short-term convenience.”).

3D printing technology.²⁵⁵ But if that happens, the cost of designing may also decrease.²⁵⁶ And the need for a patent or other IP incentive may be reduced as well. But for the time being, this business model presents sustainability concerns.

Even if this business model is one that should be encouraged, that does not mean we should base our entire design-protection system around it. It's not clear that this model needs additional IP incentives at all. Despite much wailing and gnashing of teeth about the imminent demise of these types of businesses, the business model has survived. And it has done so despite the lack of cheap and easily available IP protection for the designs *qua* designs. If that were really as fatal as previous commentators have suggested,²⁵⁷ this business model should have disappeared long ago.

While further research into these markets is needed to definitively explain this phenomenon, there are at least two possible explanations. It may be that the relevant industries successfully adapted to their low-IP environments.²⁵⁸ A second possibility is that in these fast-moving, style-conscious fields, non-IP incentives—such as the first-mover advantage and branding—may be sufficient to incentivize a high level of design innovation.²⁵⁹ In either case, the argument that these industries need additional IP incentives is dubious at best.²⁶⁰

Indeed, the history of design innovation in the United States suggests that the need to incentivize most types of designs using IP protection may have been overstated. This is not to say that there is no need for any IP incentives. But the idea that we need easy and cheap protection to incentivize all or most types of design seems to have been disproven by history. For at least 100 years, commentators have argued that cheap and easy design protection is

²⁵⁵ See generally Lucas S. Osborn, *Regulating Three-Dimensional Printing: The Converging Worlds of Bits and Atoms*, 51 SAN DIEGO L. REV. 553, 561–62 (2014).

²⁵⁶ Currently, the cost of industrial designs includes: (1) direct cost; (2) manufacturing cost; and (3) time cost. ULRICH & EPPINGER, *supra* note 77, at 215.

²⁵⁷ See, e.g., S. Priya Bharathi, Comment, *There Is More than One Way to Skin a Copycat: The Emergence of Trade Dress to Combat Design Piracy of Fashion Works*, 27 TEX. TECH L. REV. 1667, 1669–70 (1996) (“Present law and domestic policy in the United States . . . fail to protect the fashion industry from design pirates, thus facilitating the erosion of profits and consequently discouraging innovation. . . . Design piracy destroys any incentive to be innovative, and innovation is the key to competition and success in the fashion industry.” (footnote omitted)).

²⁵⁸ See RAUSTIALA & SPRIGMAN, *supra* note 247, at 39.

²⁵⁹ The first-mover advantage may be particularly strong where new or complicated tooling is required. See generally ULRICH & EPPINGER, *supra* note 77, at 215 (“Surface finishes, stylized shapes, rich colors, and many other design details can increase tooling cost and/or production cost.”).

²⁶⁰ Indeed, at least one previous commentator has reached a similar conclusion. See Magliocca, *supra* note 133, at 846 (arguing that “there are sound public policy reasons against extending a property right to most commercial art”).

necessary for the survival of American design.²⁶¹ But Congress has repeatedly refused to enact a general *sui generis* design-protection law.²⁶² Nonetheless, American design continues to not only survive but to thrive. According to a leading design journalist, we are living in a “golden age” of design.²⁶³ Another commentator recently stated that “design, especially industrial design, in the United States is at an all-time high.”²⁶⁴ And the United States was ranked number one in the 2015 World Design Rankings, “based on the number of design awards won at international juried design competitions and awards.”²⁶⁵

²⁶¹ See, e.g., Goldenberg, *supra* note 248, at 28 (“The designer’s arguments [in support of design-protection bills introduced in Congress in the early 20th century] ranged from rights arguments (that design copying was piracy, stealing, immoral, base, cheap, an unfair method of competition, and injured the customer by making them think that they were buying an original article when they actually were buying an imitation which was of inferior quality) to economic ones (that protection would allow design manufacturers to sell more copies of each article and thus charge a lower price per article, and that protection would reduce the need to create so many new designs and thus reduce the overall expenses of the company). They also argued that protection would create an American design industry, and that lack of protection would further the then current practice of importing all quality designs and designers from abroad.”); *id.* at 23 (“Without protection, American companies will underinvest in design relative to other countries which have effective industrial design protection. The United States may profit in the short run by allowing the well designed goods of other countries to be copied freely, but in the long run it will suffer, as it is the innovative companies that survive.”); see also *id.* at 21–23; Magliocca, *supra* note 133, at 845 (“For more than one-hundred years, designers and academics have complained that the United States provides inadequate incentives for commercial artistry.” (citing Jay Dratler, Jr., *Trademark Protection for Industrial Designs*, 1988 U. ILL. L. REV. 887, 888–89; Richard G. Frenkel, Comment, *Intellectual Property in the Balance: Proposals for Improving Industrial Design Protection in the Post-TRIPs Era*, 32 LOY. L.A. L. REV. 531, 533–34 (1999)));

²⁶² See Goldenberg, *supra* note 248, at 25. Congress did, however, grant *sui generis* protection for vessel boat hulls in 1998. Digital Millennium Copyright Act, Pub. L. No. 105-304, Title V, 112 Stat. 2860, 2905 (1998) (codified as amended at 17 U.S.C. §§ 1301–1332).

²⁶³ Cliff Kuang, *The Rise of Silicon Modern*, WIRED (2014), <http://www.wired.com/2014/09/design-package-2014/> [<https://perma.cc/S6E4-TNXQ>] (“It is, in fact, another golden age: the era of Silicon Modern.”). According to Kuang, this golden age is being fueled—not impeded—by copying. See *id.* (“This new age will only get more exciting. When technical wizardry becomes commonplace, design becomes a competitive advantage. Yet design is so easy to copy that designers must constantly improve upon their work. The result is a fevered pace of innovation. As companies compete to retain their edge, they create a virtuous circle that produces better and better products.”).

²⁶⁴ Ravi Sawhney, *U.S. Innovation Can’t Stay On Top Without Smart Government*, FAST CO. DESIGN (Dec. 20, 2011), <http://www.fastcodesign.com/1665684/us-innovation-cant-stay-on-top-without-smart-government> [<https://perma.cc/S2P4-JKL7>] (“Based on my experience judging global competitions, I’d say that design, especially industrial design, in the United States is at an all-time high.”).

²⁶⁵ Juliana Neira, *World Design Rankings 2015*, DESIGNBOOM (Jan. 1, 2016), <http://www.designboom.com/design/world-design-rankings-2015-01-01-2016> [<https://perma.cc/9QUV-69UB>].

Even if the PTO's costly screen is selecting against the acquisition of *design patents* for certain types of designs, there is no evidence that the costly screen is disincentivizing the creation or dissemination of socially valuable *designs*. And ultimately, the point of the design patent system is to incentivize the creation of new and creative aesthetic product designs, not to maximize the number of issued design patents.

B. *Evaluating the Effect of the Screen*

This analysis demonstrates that the PTO's costly screen serves an important function in the context of designs—it eliminates at least some harmful design patents.²⁶⁶ At least in theory, the benefit of that screening could “be quickly counterbalanced if the screen similarly selected against low private/high social value patents.”²⁶⁷ While the PTO's costly screen could select against (at least some) low private/high social value *design patents*, it does not appear to have actually discouraged the creation or dissemination of low private/high social value *designs*. Indeed, there is no empirical evidence that the costliness of obtaining design patent protection discourages the creation or dissemination of any designs—let alone that it discourages the creation or dissemination of designs with high social value.²⁶⁸

Even if there were some evidence suggesting that the costliness of obtaining design patent protection were, in fact, discouraging the creation of designs with high social value, that evidence would still have to be weighed against the substantial benefit that the costly screen provides by weeding out bad design patents. As this Article has shown, bad design patents exact significant costs on society, even if they are never enforced in court. These costs are too often ignored by proponents of cheaper, easier-to-obtain design protection.

Ultimately, there is simply no evidence that the PTO's costly screen is deterring any designs, let alone enough designs—either in terms of quantity or quality—to outweigh the beneficial effects of screening out low-quality or unnecessary design patents. There is, however, some historical evidence that making design protection easier to obtain does not automatically lead to superior design.²⁶⁹ So the PTO's costly screen has clear benefits and no

²⁶⁶ See Fagundes & Masur, *supra* note 4, at 691 (“[T]he cost of obtaining a [utility] patent serves an important function: it screens out a significant number of harmful intellectual property rights—patents that would be filed but for that cost.”).

²⁶⁷ Masur, *supra* note 7, at 712.

²⁶⁸ At least, there is none that the author could find.

²⁶⁹ See Magliocca, *supra* note 133, at 881 (noting that “the robust protection of incremental innovations for a time in the Nineteenth Century did not have a significant impact on the quality of American design”).

proven societal cost. Therefore, it is likely welfare-enhancing—and could be even more so if it were paired with a more effective substantive review.²⁷⁰

Some may argue that it is somehow unfair or improper to make design originators bear the cost of obtaining design protection. However, this view assumes that every design originator has contributed something new and valuable to society. But that is not necessarily true. Even if a design is original, it may not be novel—or sufficiently novel.²⁷¹ And even if the design is new, it may or may not be valuable. As discussed above, some design patents have low or even negative social value. And the grant of every design patent comes with a cost—most notably on competitors. The question really isn’t “how much should design protection cost?” as much as “who should pay the costs of design protection?” Viewed in this light, it is not unreasonable to place the cost of at least some *ex ante* validity review on the person who seeks the design patent. After all, in the United States, copying is the status quo.²⁷² If someone wants to change the *status quo* and lock up a design, it is not unreasonable to make that person provide some proof—or go through some process—that such a change is worth the public’s while. Design registration systems, like the European Community Designs regime, essentially push the cost of determining validity onto accused infringers.²⁷³ Which might be okay if you think that all or most accused infringers are actual infringers. But of course, they are not.²⁷⁴

²⁷⁰ Notably, though, the costly screen can still provide value even with a flawed substantive screen. See generally Masur, *supra* note 7, at 714–15.

²⁷¹ See Burstein, *Standard Criticisms*, *supra* note 35, at 328 (noting that “[h]istorically, many design-protection laws have included some type of novelty-plus requirement” and that even Europe requires novelty-plus “individual character”).

²⁷² See Mark A. Lemley, *Property, Intellectual Property, and Free Riding*, 83 TEX. L. REV. 1031, 1031 (2005) (“Intellectual property protection in the United States has always been about generating incentives to create. . . . On this long-standing view, free competition is the norm. Intellectual property rights are an exception to that norm, and they are granted only when—and only to the extent that—they are necessary to encourage invention.”); *id.* at 1067 (“Indeed, some have argued that competition itself is a public good that should be treated as a property right. Benjamin Kaplan elevated this principle to the form of a ‘natural right’ as well.” (footnote omitted) (citing DINA KALLAY, *THE LAW AND ECONOMICS OF ANTITRUST AND INTELLECTUAL PROPERTY: AN AUSTRIAN APPROACH* 52–54, 56–60 (2004); BENJAMIN KAPLAN, *AN UNHURRIED VIEW OF COPYRIGHT* 2 (1967))). Admittedly, not everyone agrees with this view; many prefer an opposite first principle based on “the Lockean notion that having put labor into something, one should own it.” Lemley, *supra*, at 1066–67. However, in the design context, the Supreme Court has firmly—and correctly—rejected this view. See *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 166 (1989); *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 233 (1964); *Kellogg Co. v. National Biscuit Co.*, 305 U.S. 111, 111–15 (1938).

²⁷³ They also pose significant additional costs on competitors. See Graeme B. Dinwoodie, *Federalized Functionalism: The Future of Design Protection in the European Union*, 24 AIPLA Q.J. 611, 709–10 (1996).

²⁷⁴ See, e.g., Complaint, *OurPet’s Co. v. Dorskocil Mfg. Co.*, No. 1:14-cv-02020 (N.D. Ohio Sept. 11, 2014), ECF 1 (stating the worst design patent claim this author has ever

Another objection to using a costly vesting system for design protection is that such systems favor rich, sophisticated design originators. And it certainly does. But so does every legal system and legal right ever created—including Europe’s Community Designs and copyright. Certainly, that does not mean these systems should be immune from criticism on this basis. However, it does mean that this problem is not unique to the design patent system.

In any case, granting cheaper—or even free—design protection would not solve the problem. It would not put small players on an even playing field with rich, sophisticated ones. To the contrary, it would likely make the situation worse for the small players, who would be disproportionately affected by the increased search costs and barriers to entry. There may also be other ways to ameliorate disadvantages faced by small design firms or solo designers, such as the PTO’s existing small and micro-entity fee structure. And there may be business or licensing structures that would allow solo and small designers to obtain value for their designs, even if they do not end up owning the resulting patents.

Even if design protection is free or cheap, enforcement is not. Sophisticated prosecution and enforcement is even more expensive. If someone can’t or won’t spend \$5,000 to get a design patent, it seems unlikely that they will spend hundreds of thousands of dollars to enforce that design patent in court.²⁷⁵ This suggests that what proponents of cheaper (or free) design protection really want is the ability to maximize the *in terrorem* effect of cease-and-desist letters—or, perhaps, to take advantage of ex parte Customs seizure procedures. These types of enforcement measures impose significant costs on competition, especially in systems where design protection is granted without *ex ante* substantive examination. And an unenforced design patent carries its own costs by, for example, increasing search costs for new entrants.

Ultimately, it is true that the PTO’s costly screen may price some would-be patentees out of the system. But that fact is not, standing alone, sufficient to outweigh all of the costs of a “cheaper” design protection regime.

VI. IMPLICATIONS

This analysis has important implications for a number of current design-protection policy issues. Commentators have argued that the United States should abandon the design patent system for a design registration regime in

seen); *see also* Order of Case Dismissal, *OurPet’s Co. v. Doskocil Mfg. Co.*, No. 1:14-cv-02020 (N.D. Ohio Nov. 18, 2014), ECF 12 (suggesting that the case settled fairly quickly). Of course, there are likely selection effects at work when only filed lawsuits are considered—logically, most strong cases would settle before ever seeing the courthouse door.

²⁷⁵ Of course, there may be lawyers willing to take such cases on a contingency basis. Hopefully, any such lawyers would vet the cases, to some degree, on merit.

order to make design protection cheaper to obtain.²⁷⁶ But that ignores the value of the PTO's costly screen in weeding out welfare-diminishing design patents.

This analysis also suggests that the goal of making design patents—or other types of design protection—as cheap as possible is fundamentally misguided. And if costly design protection is not, in fact, an evil to be avoided, that could also have ramifications for the design and operation of international design registration systems. The United States recently joined the Hague System for the International Registration of Industrial Designs (the Hague System) by becoming a member of the Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs.²⁷⁷ One of the main purposes of the Hague System is to reduce the cost of obtaining design protection in multiple countries.²⁷⁸ As discussed above, the PTO's costly design patent vesting process is actually likely to be welfare-enhancing. Making design patents cheaper to obtain would almost certainly increase the number of harmful design patents—extracting costs on competitors and society without appreciable social gains. While it is too late to stop the United States from joining the Hague System, recognizing the value of the PTO's costly screen may still have implications for other international policy issues. For example, it suggests that joining or drafting other international treaties designed to decrease the cost of design protection would be ill-advised.

This analysis may also have implications for domestic matters. It suggests that the United States should not adopt a European-style design regime simply because such a system would lower vesting costs for design originators.

It also suggests that the PTO should raise its fees. The current design patent fees “only recover a little over half of the cost of filing, search, and

²⁷⁶ See, e.g., Barbara A. Ringer, *The Case for Design Protection and the O'Mahoney Bill*, in 7 BULLETIN OF THE COPYRIGHT SOCIETY OF THE U.S.A. 25, 25 (1959).

²⁷⁷ See Press Release, World Intellectual Prop. Org., United States of America, Japan Join International Design System (Feb. 13, 2015), http://www.wipo.int/pressroom/en/articles/2015/article_0001.html [<https://perma.cc/LM55-RNS4>]; see also *supra* note 29. See generally *Hague—The International Design System*, WORLD INTEL. PROP. ORG. (2015), <http://www.wipo.int/hague/en/> [<https://perma.cc/9VXM-39Y3>].

²⁷⁸ See generally WILLIAM T. FRYER III, THE GENEVA ACT (1999) OF THE HAGUE AGREEMENT CONCERNING THE INTERNATIONAL REGISTRATION OF INDUSTRIAL DESIGNS 42 (2005) (“Cost of services . . . was very much a topic in each experts meeting session, with an emphasis on keeping costs reasonable.”); see also *id.* at 4 (stating that, at the Third Session of the Committee of Experts in 1993, “considerable emphasis [was placed] on reduced costs by use of multiple designs in one International Registration application”); *id.* at 6 (stating that, at the Fifth Session of the Committee of Experts in 1995, “there was satisfaction with the Draft Treaty that industries with many designs could manage to protect their important designs at reasonable costs”); *id.* at 9 (stating that, at the Sixth Session of the Committee of Experts in 1996, “[t]he textile, fashion and other design registration users liked the Draft Treaty features that combined to make their initial filing simpler and less costly”).

examination.”²⁷⁹ There is no compelling reason why the PTO should subsidize design patent applications in this manner. At a minimum, the PTO should charge fees at a level sufficient to recover its own actual costs of design patent prosecution.

This analysis further suggests that the PTO should structure its fees to make it more expensive to obtain broader or longer protection. To some degree, the PTO’s single-claim rule already increases the cost of obtaining broader protection. And design patent applicants already have to pay more when they file continuation or divisional applications.²⁸⁰ Similarly, the PTO’s rules about drawings require an applicant who seeks protection for multiple embodiments to commission extra drawings. All of these rules should be maintained to sustain the efficacy current screen.

The current screen could be enhanced by making broader claims even more expensive. The PTO could charge more for multiple embodiments by either: (1) adding a direct fee for each additional embodiment claimed (not allowed); or (2) by lowering the threshold for the design application size fee. The size fee for design patents is currently the same as for utility patents—the applicant must pay extra for “each additional 50 sheets that exceeds 100 sheets.”²⁸¹ If a simple design patent is around six pages long, perhaps the size fee should kick in after ten pages. That could help discourage superfluous embodiments as well as the mega-applications that are now sometimes filed in order to provide the foundation for a long stream of divisional applications.²⁸²

²⁷⁹USPTO, PATENT FEE PROPOSAL DETAILED APPENDIX 67 (Nov. 2015), http://www.uspto.gov/sites/default/files/documents/PPAC%20Detailed%20Appendix_Final.pptx [<https://perma.cc/FH9U-ZLFZ>] (presentation to the Patent Public Advisory Committee).

²⁸⁰See 37 C.F.R. §§ 1.16, 1.53(d)(3) (2014).

²⁸¹See *Current Fee Schedule*, *supra* note 98 (listing the current “Design Application Size Fee” as \$100.00 for a micro entity, \$200.00 for a small entity, and \$400.00 for all other applicants).

²⁸²Although this Article is mainly focused on *ex ante* incentives at the time of filing, it is worth noting that the PTO could also impose maintenance fees for design patents. Currently, design patent owners do not have to pay maintenance fees. 37 C.F.R. § 1.362(b) (2012) (“Maintenance fees are not required for any plant patents or for any design patents.”). At least one commentator has advocated for the imposition of maintenance fees for design patents in order to provide “additional revenue for the PTO” and to enable “some designs to fall into the public domain.” Mike Mireles, *More Resources to the U.S. Patent and Trademark Office—Require Maintenance Fees for Design Patents*, IP FINANCE (Oct. 1, 2014), <http://ipfinance.blogspot.com/2014/10/more-resources-to-us-patent-and.html> [<https://perma.cc/SUT8-P7QN>]. In addition to those potential benefits, adding maintenance fees would allow applicants to customize their protection—if a particular applicant only needs protection for a few years, that applicant could pay less overall. The design patent system used to allow this kind of flexibility. Although the first design patent act, passed in 1842 provided for “a fixed term of seven years,” the 1861 revision gave the Commissioner of Patents the power to grant a design patent “for three and a half years, seven years, or fourteen years, as the applicant might elect in his petition or application, he paying the graduated fee provided by the act, for the term so selected.” HECTOR T. FENTON, *THE LAW*

The PTO could also increase the price of continuation or divisional design patent applications to reinforce the costly screen where it is most needed.²⁸³ Implementing any—or all—of these increases could also help strengthen the PTO’s substantive screen by raising funds to purchase, develop or commission the development of better image-search technology for design patent examiners.

Perhaps most importantly, this analysis suggests that the purported need to provide cheap and easy protection for short-lived, taste-driven products has been significantly overstated.²⁸⁴ Even though the costly screen does seem to be disincentivizing design originators from getting design patents in this space, it does not seem to be unduly disincentivizing the creation or dissemination of socially valuable designs. While further research would be helpful, the lessons of history are clear. Despite the long-time and oft-repeated predictions of its death, American design is thriving. While our design patent system is far from perfect, we must be doing something right.

VII. CONCLUSION

While the precise impact of the PTO’s costly screen cannot be measured directly, there are good reasons to believe that the costliness of design patents is, on the whole, welfare-enhancing. That is not to say that costly screening is the only or the best solution. But the screen, particularly when paired with effective substantive examination, is likely to disproportionately select against harmful potential design patents while deterring the creation or dissemination of few, if any, socially valuable designs. Therefore, the cost of design patent protection should be viewed as a beneficial feature of the system—not as a flaw.

OF PATENTS FOR DESIGNS 3 (1889) (footnote omitted). One alternative solution to maintaining/increasing design patent fees might be to lower (but not eliminate) the initial fees and impose high maintenance fees after, say, two years. This approach might ameliorate some concerns about unduly disincentivizing small players. However, a full analysis of this alternative is beyond the scope of this Article.

²⁸³ Cf. Scott D. Barnett, Comment, *The Controversy Surrounding Continuing Applications and Requests for Continued Examination*, 7 J. MARSHALL REV. INTELL. PROP. L. 545, 570–71 (2008) (arguing that the PTO should “charge higher fees for multiple continuing applications” in order to curtail abuses).

²⁸⁴ See *supra* Part V.A.4 (discussing the “lottery” arguments).